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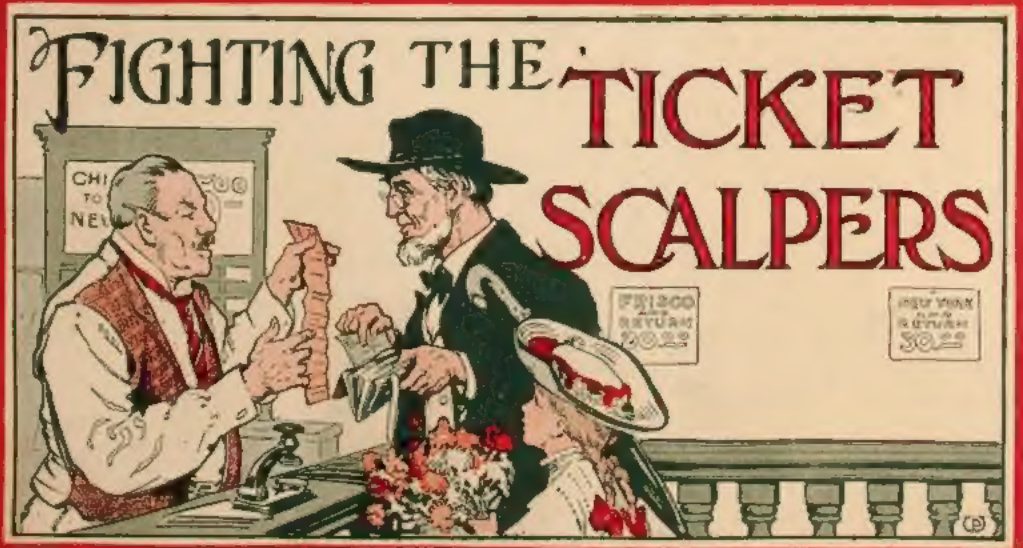
THE RAILROAD MAN'S MAGAZINE



OCTOBER

THE FRANK A MUNSEY COMPANY, NEW YORK AND LONDON

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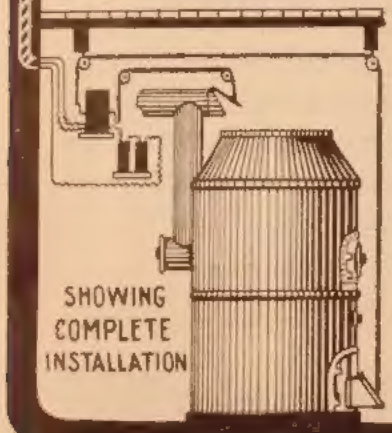
All parts of the Howard Thermostat are made of the very best materials, and it is guaranteed for 10 years. Thousands have been in use more than 25 years. Its saves running up and down stairs and prevents accidents by fire. It is absolutely impossible for it to run down and leave the draft open.



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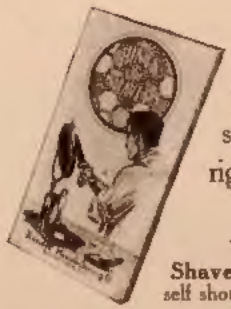

costs more than its imitations, but it's the only stropper adapted to all style blades; the only stropper scientifically adjusted and controlled; the only stropper that automatically strops exactly "like the barber"; the only stropper that's made right, works right, and will last for years.

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THE RAILROAD MAN'S MAGAZINE

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THE RAILROAD MAN'S MAGAZINE

Vol. X. OCTOBER, 1909. No. 1.

Our Third Mile-Post.

Reminiscences of an Exciting Run, During Which We Have Negotiated All Grades, Curves, and Rough Track, and on Which We Are Still Breaking All Previous Records. The Green Light Shows, the Signal Has Been Given, the Right of Track is Ours, and We Are Off Again on Schedule Time. All Aboard!

BY THE EDITOR.

THREE years is not a long time in the life of a magazine. Usually it is only long enough to discover the difficulties in the way and to suggest some of the methods by which they can, perhaps, be overcome—in time. To start a magazine and see it come to full stature of popularity and influence before it has reached the end of its third year is something of an achievement. If we were not naturally modest, we would say that it is unexampled in the history of magazine-making; but that would be conceited, and the egotistical tempt Fate. So we shall say only that it is something quite worth doing.

Getting the Right of Way and Opening the Line for Traffic.

In the first number, which appeared three years ago this month, Mr. Munsey announced THE RAILROAD MAN'S MAGAZINE as a "new creation," saying further: "There is nothing else in America, or in any other country, just like it. We have had no examples to follow. Consequently, we may have fallen short of the mark at which we have aimed. But perfection is usually a thing of growth. The important thing is to begin—to make a start."

We have made the start. Now we take the opportunity to pause a moment and look back at the way we have come—not long, perhaps; but starred with places where decisions have been made and problems solved, dotted with reminders of good friends we have made—and kept. And, after all, that is the great achievement—to have made friends and kept them. If we have any pride in the work of our hands, it is chiefly in that. This magazine has become a great room

in which editors and contributors and readers may meet on common footing and discuss their differences and discover their common likings, tell the old stories and sing the almost forgotten songs, listen to accounts of great deeds and laugh over the recital of comical experiences—perhaps grow a little sad over the tragedies that must creep into such a gathering.

A Glance at the Service and the Operating Force.

We cannot hope to call you all by name — you are too numerous and too widely scattered. All that we can do here is to reintroduce those who have been among us most frequently—to whose work no small part of the success of the magazine is due. No magazine ever had a more loyal and intelligent corps of contributors, and never was a magazine more appreciative of their work. It is impossible to name all. To do so would be to call the roll of the men in the United States who are writing about the railroad from almost every conceivable angle. The fiction, the drama, the poetry, the humor, the tragedy of the railroad —all have had a place in this magazine, and will continue to have so long as railroads exist. We can call up only a few which you know best, and recall to mind some of the work which they have done for us who edit and for you who read.

The first purpose of this magazine—and one which it will never relinquish—has been to cover the railroad field of the United States to the remotest nook and corner. For this reason, plans were at once made to place a special traveling correspondent in the field. Gilson Willets was the man selected. In the last three years he has traveled nearly twenty thousand miles in your behalf, visiting every important railroad center in the districts which he reached, talking with railroad men of every grade and experience, gathering stories, old and new, soaking up the essence of railroad work and life.

His first venture was over the Union Pacific and part of the Southern Pacific as far as Sacramento, California. We started him out in October, 1906, and the first result of his work appeared in January, 1907, under the title, "Fighting Fire in the Sierra Snowsheds." This was the first authentic account that has ever appeared in any magazine of the precautions taken by the Southern Pacific to protect the great line of snowsheds on the western slope of the Sierra Nevada Mountains. Its stories of close calls and thrilling experiences was an earnest of that which was to come in later instalments from Mr. Willets.

In February of that year we printed the first number of the real thing, "Campaigning With a Railroad Army." The title describes the articles better than any amplification could possibly do. It is a fight every day and every night that the railroaders of the mountains and plains are carrying on with water and wind and snow, with fire and with animals and with animal-like men who crave the treasure carried in the roaring expresses.

With Willets On Everybody's Main Line.

Eight numbers there were in all, and when Mr. Willets finished that first series he was in Chicago hobnobbing with the men of the Union Station there. Perhaps you remember the story of the fight of "Big Jim Ashley" to put the new Toledo and Ann Arbor tracks across the line of the Michigan Central at Howell, Michigan? That was the one with which the series ended. It was picked up by Mr. Willets in Chicago, and was typical of the forgotten yarns which he raked out of the memories of the many men with whom he talked.

So much for the first trip. No sooner was he home than we started him

off again, after the fashion of Strickland Gillilan's old railroad rime, "Off ag'in, on ag'in"—you know the rest of it. It was in January, 1908, that we gave you the first number of his new series, "Around the Union by Rail," and for fourteen months he poured out the contents of his note-books, filled during his ten-thousand-mile trip from Chicago to the coast over the Great Northern, down the coast to Los Angeles, thence back to St. Louis on the rails of the Santa Fe, down to New Orleans by the Illinois Central, across to Jacksonville, following the Gulf coast, and so up to Washington and home. It was the first time any correspondent for a magazine had "bounded the United States by rail," and the length of the series is proof of the richness of the material he gathered, for every article was pruned down to the very heart of its best anecdotes.

In February of the present year that series ended, and prompt on the following month Mr. Willets was ready to pick up the thread with "Riding the Rail from Coast to Coast," which is still running. For this series Mr. Willets made his way to Boston, collecting the cream of the stories that have risen to the surface of the New England district. Thence he swung westward to Chicago, gathering a bundle of anecdotes told him by the railroaders of the Great Lakes on the way. In Chicago he paused again, and then he was off to St. Paul to set foot on a train of the Northern Pacific, which carried him still westward. To describe in detail the points which he touched would be to anticipate. Butte gave up her best; the new line of the St. Paul was represented in the August number; in September you had the romantic story of Salt Lake.

In later numbers you will follow Mr. Willets over the Oregon Short Line, thence to Los Angeles over the line of the "newest desert railroad," to linger a while among the railroaders of the Golden State. Then you will make your way eastward again over the Southern Pacific through the last of the Territories to El Paso. The next step will take you into a new series, in which you will tour Texas and Oklahoma, a veritable "railroad empire." That must suffice for the twenty-thousand-mile wanderings of the special traveling correspondent of THE RAILROAD MAN'S MAGAZINE.

Small wonder that "Watch for Willets!" the slogan of the men along the routes he travels, has become also a foreword of good things to come to the readers of the magazine.

Gripping Stories of the Men Who Held Up Trains.

The first number of the magazine contained the first instalment of a series that ran for a year, "The Great American Train Robberies." Over forty years ago the first train robbery occurred near the little town of Marshfield, Indiana. Since then the record has been a long and sometimes a gory one. "The Marshfield Affair," "The Younger Gang," "Rise and Fall of Jesse James," and "The Mysterious Thirteen" were the subtitles in the first volume. Hedgepeth, Oliver Perry, Evans and Sontag, Morgan and Searcey—these were some of the names that have been made famous for their infamy and have found a place in these chronicles.

Here is the complete list of the Great American Train Robberies series:

THE MARSHFIELD AFFAIR.
Charles Francis Bourke.

THE YOUNGER GANG.
Charles Francis Bourke.

RISE AND FALL OF JESSE JAMES.
Charles Francis Bourke.

THE MYSTERIOUS THIRTEEN.
Charles Francis Bourke.

THE CHICAGO AND ALTON AFFAIR.
Charles Francis Bourke.

THE "INSIDE JOB" OF THE C. R. I. & P.
Charles Francis Bourke.

WITRECK, THE LONE HIGHWAYMAN. Charles Francis Bourke.

THE SOUTHERN PACIFIC DYNAMITERS. Charles Francis Bourke.

WIPING OUT THE HEDGEPETH BAND. Charles Francis Bourke.

OLIVER PERRY, THE LONE-HAND PLAYER. Burke Jenkins.

THE EVANS AND SONTAG AFFAIR. Frederick Lawrence.

TWO MEN ON BICYCLES. Frederick Lawrence.

THE DAYLIGHT TRICK ON THE MINERAL RANGE. Arthur B. Reeve.

THE MORGAN-SEARCEY HOLD-UP. Arthur Wallace Dunn.

It is pleasant to turn from train robberies to more peaceful matters, such, for example, as the "Observations of a Country Station-Agent." Thought you would remember that. Yes, the author is a real station-agent—a plain, ordinary railroad man—and his name is Smith. The anecdotes he tells are of things that really happened. For years he has been working daily in a small station of a great railroad, observing the foibles and weaknesses of the people who patronize railroads, and now and then of those who run them; and these observations are the result.

The Interesting Observations of One Smith.

Do you remember what he said in his first number, 'way back in July, 1907? "Long since, without analysis or philosophy, the great public has fixed the status of the average agent as a grouch. The timid approach him tentatively and apologetically, and are unduly thankful for intelligence handed out in homeopathic doses. The bold and brave demand, in strong and insistent voice, information that often comes with the joyousness of a boy parting with a tooth."

Pretty nearly true, isn't it? And that is a sample of the homely wit and philosophy that our station-agent has been handing out for the last two years—and the end is not yet. His fund of well-timed illustration and apt moralizing is apparently inexhaustible, to the great joy of those of you who have had experience with the practical side of railroading.

Speaking of practical things, there are the articles on HELP FOR MEN WHO HELP THEMSELVES. We aim not only to amuse and interest, but also to instruct, as the circus posters say. Early in our career we came to the conclusion that a magazine which did only the first two would have difficulty in finding an abiding-place in the hearts of railroaders. Therefore, we determined to do what we could to add to the knowledge of those who are anxious to be better railroaders and to climb higher on the ladder.

To that end we have given practical expert instruction in subjects that bear directly on the daily work of those of you who are running trains or selling tickets or checking freight or walking track or doing any one of the multitudinous duties that make up the sum total of railroad work. We have described in detail the process of building a railroad from the preliminary survey to the laying of the last rail.

Training Young Men for Future Railroad Presidents.

We have told how the track is kept in order, how the trains are run, what are the duties of the motive-power department, where the trainmaster and his minions come into the game, how a man may become an engineer and what he does after he reaches that proud eminence; we have pointed the way, step by step, to the chair of the division superintendent; we have described in detail the working of foreign railroads as compared with the methods in use on our own lines, and last month we illustrated the working of the air-brake, probably the most important in the long list of railroad inventions.

The complete list of this important series is as follows:

THE MAKING OF AN ENGINEER. Robert H. Rogers.
HOW A LOCOMOTIVE BOILER WORKS. Robert H. Rogers.
INSIDE HISTORY OF A LOCOMOTIVE. Robert H. Rogers.
THE WORKING OF BLOCK SIGNALS Robert H. Rogers.
THE MAKING OF A MASTER MECHANIC. Robert H. Rogers.
HOW A RAILROAD BUYS ROLLING STOCK. Robert H Rogers.
HOW A LOCOMOTIVE IS BUILT John Elfreth Watkins.
FEELING A LOCOMOTIVE'S PULSE. C. T. Rommel.
ELECTRICITY FOR TELEGRAPHERS Part I. J. H. Gingrich.
ELECTRICITY FOR TELEGRAPHERS. Part II. J H Gingrich
ELECTRICITY FOR TELEGRAPHERS. Part III. J. H. Gingrich.
RAILROADS FOR TO-MORROW. John Elfreth Watkins.
RAILROADS' RACE WITH TIME. Robert H. Rogers.
MAKING A DIVISION SUPERINTENDENT. One of Them.
THE MAN WHO PULLS THE FREIGHT. Robert H. Rogers.
RAILROADS OF THE OLD WORLD. Thomas Benton Connor.
RAILROAD MEN OF THE OLD WORLD. John Elfreth Watkins.
IN THE RAILROAD COURT. Robert H Rogers
SURVEYING FOR A RAILROAD. Charlton C. Andrews.
BUILDING A RAILROAD TRACK Charlton C. Andrews.
KEEPING A RAILROAD TRACK IN ORDER. Charlton C. Andrews.
THE MEN WHO HANDLE THE ENGINES. Charlton C. Andrews.
GETTING THE TRAINS OVER THE ROAD. Charlton C. Andrews.
IN THE TRAIN SERVICE. Wyatt Ellerton.
HOW THE AIR-BRAKE WORKS. C. F. Carter.

Then there were those articles on "Electricity for Telegraphers," which, we are assured, were the best and most useful of their kind that had ever been published. We could go on citing examples of what has been done in this direction for a full page more, each sentence would carry with it a work that we could bring together in readable form a vast amount of valuable information for the young and the amateurs among our readers. The popularity of this department, as evinced in the letters from our readers, is the best proof of its success.

Trials and Triumphs of the Pioneer Railroad Builders.

Among the many untouched fields of railroad literature that we entered early in our career was that of industrial not only topographical but what we may call institutional. Many of the great systems of this country had their birth in circumstances of unexpected and romantic interest. The Erie, for example, sprang from a canvass trip over the newly established South Carolina Railroad. When this fact came to our attention it set us to wondering if similar origins could not be found for other roads, and we set C. F. Carter to work collecting the material. In due course we had the early story of the Baltimore and Ohio, the Erie, the Pennsylvania, the New York Central, the Santa Fe, the Union Pacific, the Canadian Pacific, and other systems whose destinies now closely interwoven with the industrial and social fabric of the country. Later this series became a book, "When Railroads Were New," and was welcomed as a great addition to the railroad literature of the United States.

Mr Carter also wrote for us "The Inside History of Great Inventions," not strictly railroad perhaps, but bearing so closely on the labor of transportation and communication that we could not pass it by. Mr Carter was also responsible for the "Men Who Have Made Travel Safe," to which the whole field of

railroad improvement was traversed, from Ross Winans, builder of the Baltimore and Ohio, and first of the long list of railroad inventors, to Phineas H. Dudley, inventor of the modern steel rail, who is still laboring to perfect the pathway of flying limiteds and the pioneering freights. In between these two names were recorded the achievements of Baldwin, first of the great locomotive builders, Westinghouse, the wizard of the air brake; Pullman who added ease as well as safety to railroad travel and Lorenzo Coffin, who brought to pass the safety appliance law, which has saved thousands of lives and millions of money. And this, too, was a new thing, parts of the story had been told here and there, but never before as a related whole.

Biography, the man behind the machine, the personality that makes the thing a possibility, has always been a strong point with us. Not only THE MEN AT THE TOP, Sir William Van Horne who began as a telegraph operator, and is now head of the great Canadian Pacific; W. H. Newman, who was once a station agent, and retired lately from the chair of president of the New York Central; Gould, Harriman, the czar of the greatest transportation system in the world; Moffat, who is amusing himself in his old age by putting a railroad over the Rocky Mountains; Yoakum, of the Rock Island; James J. Hill almost the last of the old school of railroad builders; C. S. Mellen, one of the greatest of the new—not only these men have been pictured in our pages, but also the lesser-known men, the privates in the ranks and the non-commissioned officers of the railroad army.

What Electricity Has Done to Revolutionize All Things.

Our first number had a story of a ride with "Big Arthur" Allen, of the Empire State. Last month we told you some stories of Charles W. Douglas, only a few months dead, the first train despatcher in the United States, and also the first man to take a message over sound. Before that we gave you Lawrence, the oldest conductor in the Pullman service. Later there was Conductor Jennings, who saw the first railroad run in the State of Ohio; Frankum, now assistant manager of the terminal properties of the Grand Central Station in New York, who knew the first Vanderbilt, and "ran" a train between New York and New Haven in the stormy days of the Civil War, and a host of others who have helped to make railroad history without striving to add lustre to their names heretofore. It is an illustrious list, that list of those we have only lack of space prevents our adding more names to it here.

Every great event has its story, and every great movement however novel in its outside appearance, has its personal and romantic aspect. Even THE STORY OF ELECTRICITY, by Earl Mayo dry and scientific in appearance as the name is, has its human face, as our readers can testify. It took us seven numbers to tell that story, and it is only just lately completed; but the narrative probably commemorates the biggest water mark of human invention thus far. What ever is done in the future in the mechanical field will relate back in some way to the work of the men who have tamed the mysterious fluid and set it to work feeding and carrying for the sons of men. It runs at our behest and awaits our commands as an obedient servant should. It does our menial tasks, and serves our slightest whims. It also bears our greatest burdens and solves our most perplexing problems in the overcoming of time and space. All this and more we told in the series of THE STORY OF ELECTRICITY. If any one doubts the importance of the subject, he has only to watch the course of railroad development for the next decade. We are not prophesying—only telling you.

Our fiction is very far from being the least object of our pride. The moun-

[illegible] Robert Lawrence Holland, and their [illegible] and the [illegible] troops of Mr. Lewis E. Hartel, to whose [illegible] the P. and P.; the wheedling, fiery Irishmen that Mr. E. W. Cooley has given us, the [illegible] characters of Lance Corbin—all these and more have found a place in these columns to make us laugh and cry.

Life-Throbbing Fiction Full of Smiles and Tears.

The serials have been the best that we could get from the very start. In our first issue we [illegible] the opening instalment of "Bill Quest, Railroader," by Lawrence Perry, and "The Brass Bell," a specially [illegible] among the "six best sellers" of the year. Then there was "The Projectile," that unequaled [illegible] tale of speed which [illegible] between book covers as "The Steel Speed." Last year we had "The Colonel of the Bill," also [illegible] more permanent [illegible] of [illegible] to the pages of this magazine for several months by the [illegible]. Do you remember "The Ogden Limited," a captivating story of [illegible] the Signal," and "The Paymaster's Special," [illegible] real railroaders read and approved? At Bay on the Frontier, whose [illegible] parallel of the rush of the transcontinental railroads [illegible] took place? These stories alone would have justified the existence of [illegible] experts has confirmed his accuracy and judgment.

But it has done more—much more. For example, for the last two years our [illegible] expert has answered literally thousands of questions that have reached us through this department, "By the Light of the Lantern." They were [illegible] some of these questions, but our expert has always found the answer, [illegible] has ranged from the operation of block signals to the [illegible] American railroader in far-away Brazil and the opinions of other experts has confirmed his accuracy and judgment.

Our "Record Railroad Patents" is another department that has ministered to the wants of those who wish to know not only the romance of railroading, but also the sober fact. In the three years of the magazine's existence there has not been a patent granted at Washington bearing on railroad operation to any important degree that has not been described in that department. It has reflected, step by step, the forward movement in the mechanical side of the work of transportation, and its pages furnish forth an accurate history of three years' progress.

We must not forget our artists. Side by side with ourselves and our contributors they have labored to make this magazine the highest expression of railroad life and thought. It has been our ambition from the first to make this magazine not only interesting, but "right."

The Past Prophesies the Future.

We have come to the end of our retrospect, but the work has only begun. We have paused for this backward look not as any sportsman, brooding over a finished task, but only to run over with you the steps that we have taken as proof that we are now ready to go forward to greater results and higher aims. If the magazine has been good in the past, it will be better in the future. All that time, money, thought, patience, and persistence will add can spread before you monthly, to the end that THE RAILROAD MAN'S MAGAZINE may fully express the lives and thoughts and ideals of the 1,500,000 men who spend their days and nights along the 250,000 miles of railroad track in the United States.

MOST UNIQUE RAILWAY STATION.

The Pennsylvania's New York Structure Is Really a Monumental Bridge Over the Tracks.

THE Pennsylvania Railroad has placed in position the last piece of stone in the exterior of its new station in New York City. This involved the completion of stonework enclosing some eight acres of ground. To enclose this vast area has necessitated the building of exterior walls aggregating 2,458 feet, nearly half a mile, in length, and has required 490,000 cubic feet of pink granite.

In addition, there have been utilized inside the concourse 60,000 cubic feet of stone. A total of 550,000 cubic feet of granite have thus been utilized in the construction and ornamentation of this building. It took 1,140 freight-cars to transport these 47,000 tons of stone from Milford, Massachusetts.

In addition to the granite, the construction of this building has called for the use of 27,000 tons of steel. There have also been set in place some 15,000,000 bricks, weighing a total of 48,000 tons. The first stone of the masonry work on the building was laid June 15, 1908. The entire masonry was thus completed in approximately thirteen months after the work was begun.

Built after the Roman Doric style of architecture, the building covers the entire area bounded by Seventh and Eighth Avenues and Thirty-First and Thirty-Third Streets. The depth of the property on both streets is 799 feet 11¼ inches, and the length of the building is 788 feet 9 inches, thus allowing for extra wide sidewalks on both avenues. The walls extend for 430 feet 6 inches from Thirty-First to Thirty-Third Streets, the Seventh Avenue facade signalizing the main entrance.

In designing the exterior of the building, Messrs. McKim, Mead & White, the architects, were at pains to embody two ideas: To express (with the unusual condition of tracks far below the street surface and in spite of the absence of the conventional train-shed) the exterior design of a great railway station in a generally accepted form; and also to give to the building the character of a monumental gateway and entrance to a great metropolis.

The structure is really a monumental bridge over the tracks, with entrances to the streets on its main axes and on all four sides. In this respect this building is unique among the railway stations of the world.

VALUE OF SCRAP.

Re-Creating from Things Thrown Away and Saving Money by the Enforcement of Sale Guarantees.

AN item of considerable importance on a railroad is scrap-iron, and while this can be easily understood by the general public, the outsider can scarcely have an idea of the care and skill exercised in the handling of this commodity.

In the *Santa Fe Employees' Magazine*, Mr. C. H. Hoinville, of the Santa Fe's purchasing department, gives an outline of the procedure followed on that road.

"During 1906," he says, "on the Santa Fe Railroad there was sold 70,847 tons of scrap-iron for $1,054,724.51, or an average of 5,904 tons monthly at $14.89 per ton, and during 1907 there was sold 84,022 tons for $1,261,882.29, or an average of 7,000 tons monthly at $15.02 per ton.

"The above is sufficient to show the importance of the scrap department of a railroad, and when attention is called to the

fact that much more money is saved by reason of the rigid inspection at the scrap-pile than that represented by the above figures, the position lately assumed by the various lines with regard to this department is shown to be of great importance.

"'Larry,' of the track gang, does not mean to be careless when he throws a bent track wrench, lining bar, or failed shovel onto the pile beside the section house, but he has not the time nor tools to straighten them, and he knows nothing of the terms of the contract under which the shovel is supplied

"A broken coupler means just so much delay to a freight-train, already behind time, so the examination for blow-holes is not made until it reaches a scrap-yard at the store-house. Failed wheels, defective tires, cracked bolsters and truck frames are only a small portion of the many items that the store and mechanical departments jointly inspect

"The number of tons of bar-iron taken from old truss rods, etc., and worked over into bolts and other merchantable iron is startlingly large, when we consider that what would be sold as scrap, without inspection, at less than one cent per pound, must be purchased at more than that amount.

"The common procedure is for the trackmen to pile all scrap material onto a work-train, carry it to the nearest section-house, and hold it until the scrap-train goes through Inspection may, and should be, made at these points by the section foreman or roadmaster to select all usable material for the tool-house.

The balance is then loaded onto the scrap-train sent over the division and finds its way to a storehouse with a scrap-sorting yard. The Santa Fe has one at each of the following points: Corwith, Albuquerque, San Bernardino, Richmond, and Cleburne.

"The car loads are then gone over thoroughly by experienced sorters, under a competent foreman, and the material is unloaded into the various piles, or bins, as there are ninety-six different items in the classification of scrap. The good material is returned to 'Stock C.' Material that can be so handled is reworked.

"That which has failed in service through defect, or which has not outlived its guarantee, is either returned to the shipper for replacement or a credit equivalent to its scrap value is allowed by the railroad, while replacement is made by the shipper or a credit given for its value as new material."

NEW YORK'S MILLIONS.

All Metropolitan Figures Are Huge, but the Transportation Statistics Put All Others in the Shade.

GIGANTIC things which the mind cannot grasp either appal one or cease to have any meaning, if repeated year after year with slight variation. That is why the wonderful statistics of metropolitan traction are so little appreciated and so little known by the general public.

The New Yorker is used to reading about millions and billions in his local news. The addition of a few odd millions passes unnoticed. When he is informed that the capitalization of the transportation companies of his city is over $533,000,000, he looks at you in a matter of fact way and says: "You don't say!"

If you tell him that Matthewson was batted out of the box, that is real news, though hard to believe; but if you tell him that 1,300,000,000 people were carried on the subway, elevated, and surface lines of the city during 1908, a miracle of civilization unequalled in the history of the world, he may possibly say, "Gee!" but that is the highest tribute he will pay for the information.

It is not lack of civic pride, but a real tribute to the seeming incomprehensibility of the ever changing, ever increasing figures which represent the passenger traffic of the metropolis

Up to the close of 1908, $50,000,000 were spent on subway construction alone, and between three and four times that amount is scheduled to be spent for that purpose in the immediate future. Even the number of accidents bears its grim tribute to the incredible congestion, there being about fifty thousand during the year, and about six hundred lives being lost.

The year's traffic was equivalent to each man, woman, and child in the United States taking fifteen trips on one of the city's transportation systems, while the income from it would provide an excellent dinner for every human being in North America.

CAMPBELL'S WEDDING RACE.

BY HARRY BEDWELL.

"Extra, 1127" Does Some Stunts Trying to Reach Junction City in Time to Hear the Joy Bells Ring.

CAMPBELL, who had for some time been standing by the window, knocking holes in the cupboard with short, vicious kicks, turned from his scrutiny of the unpainted roofs of the little town that nestled under the sage-brush hill, and addressed himself to the first trick despatcher, who sat at a table near the other window.

"I'd like to know what a fellow in my fix can do," he complained. "What would you do?" he asked hopelessly.

Racey, the first trick man, completed an order before answering.

"How do I know what I should do?" he said languidly. "I've never been in such a fix, you know, and I couldn't advise you. Anyhow, you wouldn't take advice if I'd give it."

Campbell turned back to the window, and began kicking holes in the cupboard again, his rough, heavy shoes making the wood and paper yield easily to the blows.

"Better cut it out," advised Racey dispassionately. "The chief will come in here and fall all over you if you don't."

Campbell gave another kick. "I wish some one would try it," he said.

Racey glanced at the big, broad shoulders, and shook his head. "I don't," he remarked—"not in here."

As could easily be seen from his expression and tone of voice, Campbell was mad—not angry.

For this was his wedding-day. His bride-elect was one hundred miles away, and he had no way of reaching her. All arrangements had long ago been made for him to wed Nellie McDonald that evening at eight o'clock, but it was now 12.30 P.M., and he was far from his heart's desire.

Mechanically he took out his watch and ran his thumb over its face as he counted the exact time there was left.

"I could make it by a scratch, if they'd only give me a chance," he muttered to himself.

Campbell was an extra passenger engineer. The day before, in Junction City, he had asked for a two weeks' layoff, that he might marry and take a trip to the city. But they were short of passenger engineers at the time, and the trainmaster had all but gone on his knees to Campbell, begging him to take a train to Farnham, promising him that he would get him back to Junction City in time to marry that night.

But this trainmaster had not counted on No. 9 trying to knock Little Squaw Mountain off the map. No. 9's sharp nose went about two feet into the side of Little Squaw, and then stopped. When the smoke cleared away it was found that the engine and three cars were off the track, and about one hundred yards of track torn up. This, of course, blocked traffic for some time.

That morning Campbell came down to the despatcher's office and demanded, in no gentle tone, why he had not been called to go out. On learning of the antics of No. 9, and the verdict of the despatcher that the track could not be repaired and the wreck cleared away until some time in the afternoon, Campbell came very near choking the despatcher.

Then he deluged the Junction City telegraph-office with messages to Nellie, until that young lady knew not whether Campbell was killed in the wreck or

merely behind it and unable to get by. Her father, who was master mechanic at Junction City, had pointed out the fact that Campbell could not be dead and send so many messages, which seemed logical enough to the girl, and relieved her greatly.

Campbell paced the despatcher's office all morning in a rage. For there had been no trains out going to Junction City, and he watched from a distance the hour set for his wedding.

The chief now came out of his office and leaned over the train-sheet.

"How are they getting along out at the wreck?" he inquired of Racey.

"They've got a track built almost around it," answered the trick man, "and trains will begin to move some time this afternoon."

"Suppose we had better call a crew for that extra east," mused the chief, with his eyes still on the train-sheet. "They ought to be ready for her by the time she gets there. Who's next up?"

Campbell swung round suddenly.

"I am," he cried, joy and relief showing in his voice. "Call me for that extra east."

"I wish you would quit bothering me, Campbell," he complained. "That wedding of yours can wait. You're a passenger engineer, and not running freights. You make me—"

In two strides Campbell crossed the room, gripped the chief by the collar of his shirt, swung him clear of the floor, and spun him around like a top.

"You call me to take that freight-train out!" Campbell's voice was about as gentle as his grip. "I'm an extra passenger engineer, and you've got to call me for that train if I say so."

The chief gave a grunt as his feet touched the floor, and he glared up at Campbell for a few moments, choking with wrath.

"Take the freight-train out, and see if I care," he spluttered, and stalked from the room

Campbell turned and leaned over Racey threateningly.

"I'm going to take that freight-train to Junction City quicker than any

CAMPBELL CLEARED THE COUNTER THAT SEPARATED HIM FROM THE OFFICE

freight-train has ever gone there since this plug of a road was built," he growled, "and if you lay me out any, there'll be a man short and a job over in this office when I get back."

He turned, stamped to the door and down the stairs.

Campbell cornered the call-boy in the baggage-room.

"They want you to call a crew, quick!" he said. "I'm going to take the train out, and if you get the rest of 'em around here within half an hour, I'll buy you enough cigarettes to kill you in a month."

Campbell strode down into the yard, where the switch crew was slowly making up the train. He knew better than to try to order these men about, so he swallowed his impatience and called to them cheerily:

"Get a move on you, fellows, and there'll be a keg of something cold in Mother Monohan's wood-shed some of these nights with my card over the stopper."

The switchmen winked at the engineer and grinned. But the engine suddenly took on new life.

Campbell disappeared inside the roundhouse, where he found some lazy hostlers trying languidly to make steam in one of the big freight-engines.

"Oh, the dickens!" he groaned, as he viewed the big boiler set on little wheels, looking so top-heavy that it might fall over at any moment. "I forgot I'd have to take a 'leven-hundred engine on a freight train," he muttered.

He climbed into the cab, and, snatching the shovel from the perspiring hostler, pushed him to one side, and cried:

"Get out of here, you farmer!"

The hostler slid from the cab and collapsed in a surprised heap on a pile of hot ashes, only to spring to his feet again with a muttered curse as he sat down in a tub of water to put out the fire that was eating holes in his overalls.

The conductor came out of the freight office with a handful of bills, and began checking off the car numbers on his train-book as he walked slowly down the long train.

Campbell backed the big engine down onto the string of cars, and a brakeman made the coupling and connected the air. Campbell slid from the cab and looked over his engine in feverish haste. Then, seeing the conductor sauntering lazily down the length of the train, he rushed at him with an angry roar.

"Do you think you've got a week to make this trip?" he cried. "Didn't you know I was in a hurry?"

The conductor looked up into the excited face of the big engineer with languid eyes, and then continued checking off the car numbers without saying a word. But he increased his speed perceptibly, for he knew that to anger Campbell further would mean almost certain destruction.

When they had reached the end of the train, the conductor closed his book, with the way-bills folded carefully inside, and remarked carelessly:

"Better get the orders, hadn't we?"

They crossed the yards and climbed the stairs to the despatcher's office. Racey tore off the tissue orders and handed a copy to each. The two took the orders with all due reverence, and the conductor read them over aloud.

"Now, Campbell," said Racey coolly, "I don't want you tearing up the track with any of your phenomenal runs. We've got one eleven-hundred engine in the ditch now, and it will take two derricks to get her out."

"Who are *you?*" snapped Campbell. "I don't see your name on the time-card. Anyway, how do you expect me to get to Junction City with that drag? You've put three hundred tons more on that train than the rating calls for."

"Oh," jeered Racey, "did you think this was a pleasure trip? Well, it's not; so you run along like a good fellow!"

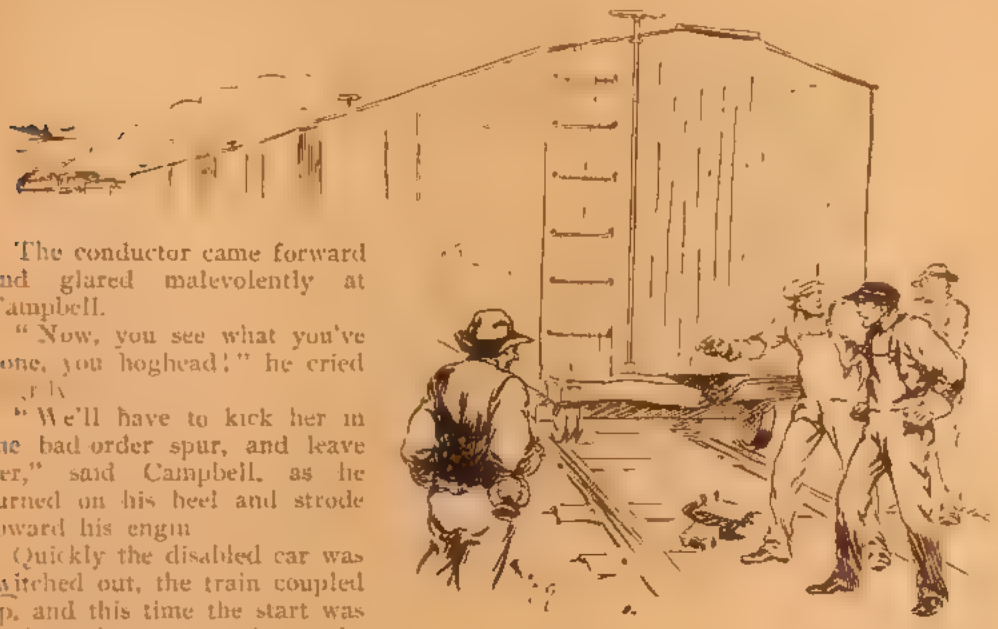
It looked for a few moments as though Campbell was going to do personal harm to the despatcher, but at last he turned, and, muttering something under his breath, stamped heavily from the room, across the yards, and into the cab.

He tested the air, whistled "out-of-town," and, as the conductor gave a languid signal, he started the train with a vicious jerk that made the little caboose at the rear end bounce and bob like a rubber ball.

Campbell glanced back over the long train with a feeling of exaltation, then suddenly shut off the steam with a curse

and a yell as the air-brakes clamped the wheels. In starting he had pulled out a coupling, and the train had parted.

He jumped to the ground and rushed back to see what had happened. There on the ground lay the draw-bar, and a big hole in the car showed that the car could not be taken along.



"NOW, YOU SEE WHAT YOU'VE DONE, YOU HOGHEAD!"

The conductor came forward and glared malevolently at Campbell.

"Now, you see what you've done, you hoghead!" he cried [illegible]

"We'll have to kick her in the bad-order spur, and leave her," said Campbell, as he turned on his heel and strode toward his engin

Quickly the disabled car was switched out, the train coupled up, and this time the start was made with more caution. As they rattled over the last switch and swung out into the open country, Campbell glanced at his watch.

"Accident number one," he muttered; "and it's one forty five. We'll have to ramble some if we get there in time. Anyhow, that car makes us lighter. Budd," he called to the fireman, "this is my wedding march, and I'm going to make it a record-breaker!"

The engine rocked and reeled as the train gathered speed. The fireman's eyes opened wider and wider as the speed increased. At the end of the first few miles they were sticking far out of his head. When he could stand it no longer, he slid carefully from his seat and made his way over to the engineer's side. He clutched Campbell by the sleeve and shouted hoarsely in his ear:

"For Heaven's sake, man, don't you know this is a 'leven-hundred engine, and that it will fall over on you if you don't slow down?"

Campbell drew in his head, gave the fireman one withering look, choked a little with anger, and then thrust his head out of the window without saying a word.

The fireman, still muttering to himself, slid down into the gangway. Bracing himself, he took up a shovelful of coal, swung open the fire-box door, and threw the coal at the blazing furnace with all his might. But just as he threw it, the door seemed to dodge to one side, and the coal went high over the boiler-head, deluging the engineer.

Campbell took his eyes off of the track long enough to give the astonished fireman another withering look, then thrust his head out of the window again.

Overcome with surprise, the fireman sank down upon the coal, and gaped at the open furnace door. At last he arose, took up another shovelful of coal, and braced himself for another try. He was not to be fooled again, so he waited until he was sure of his mark, then heaved the coal at the fire-box with all his might.

But this time he more than half expected to see the door dodge him again. When it did not, he was taken by surprise, and let the shovel go in the furnace with the coal.

Not sure just what had happened, he

stood for some time gazing at his empty hands vacantly, then at the roaring fire. When he did comprehend the dread truth, most of his shovel had by that time gone curling out of the smoke-stack.

Again he clutched at the engineer's sleeve, and this time his face was white with horror.

"I've thrown the shovel into the fire-box!" he shouted in Campbell's ear.

Campbell turned, and this time there was the ghost of a grim smile curling his lips as mechanically he reached for his watch.

"Accident number two," he said, and his eyes focused on the track ahead. "And the wedding march has just started. Let the band play on!"

The fireman stumbled back into the gangway with white, scared face. There was but one thing to do now, and he set to work at once throwing coal into the fire-box with his hands. There was not another shovel on the train that he knew of, and he had no chance to get one until they reached the first stop. It was a hard task, but there was no help for it.

The train rushed on at maddening speed, taking the hills with a rush and seeming to fall down on the other side.

A brakeman started forward over the top of the train. He gave up before he had crossed the first car, and crawled back. The little caboose seemed to be trying to do four or five things at once, but it was a safer place than on top of the box cars.

Every few minutes the white-faced conductor swore that they were off the track, but the speed increased rather than slackened.

"I'll pay him up for this when we get to Little Grade," muttered the conductor once when the caboose stayed in the air longer than usual.

The fireman still toiled at throwing coal into the furnace, but he had to keep the door open so much of the time that it was doubly hard to keep up steam.

But the engineer opened the throttle wider.

The blind sidings and the telegraph-offices flew by in quick succession, and at all points there was a clear signal.

They were out of the hills now, and the desert was before them, where the track was straight and level. There were no trains to meet, as none had cleared the wreck.

The speed seemed to increase. The miles were reeled off in quick succession. The fireman became almost frantic with the heat and his cramped position. But Campbell sat immovable on his seat, his eyes ever on the track ahead. Mercilessly kept the throttle open wide.

The afternoon shadows were beginning to lengthen when at length they pulled into Little Grade, and half of the journey was behind them. Here they would take on coal and water and get their new orders to proceed.

ONLY TO SPRING TO HIS FEET AGAIN—

Campbell brought the engine to a standstill at the coal-chute with a master hand. The fireman climbed wearily to the top of the tender and let down the door of one of the chutes. There was a rush of coal, but it only half-filled the tender.

"What's the matter with you dagos up there?" called the fireman with some heat. "Why haven't you got this chute full of coal?"

"Gotta no coal up here," came the answer. "No eng' to putta it up."

Campbell moved the engine up to the next chute, and this time the coal deluged the tender and cab.

The fireman climbed into the chute, picked up a shovel, and threw it onto the tender. The Italian boss looked wickedly at him as he climbed back into the cab, but the fireman cared little so long as he had the prized shovel.

"I'll go back and get the orders," said Campbell as he jumped to the ground.

Half-way to the depot he spied the trainmen entering the lunch-counter of the company hotel.

"Hey, there, you hay pitchers!" he called after them angrily. "Where do you think you are going? We're only two hours and a half out of a division-point. Why didn't you eat before you started?"

"We didn't have time," the conductor answered. "We were called on short notice, you know."

Campbell ground his teeth, and strode angrily into the telegraph-office, to meet with another shock.

"You fellows will have to put up coal," the operator said blandly.

In one bound Campbell cleared the counter that separated him from the office, and he gripped the operator by the shoulder.

"Who says to put up coal?" he demanded hoarsely

"Why—why, the despatcher," said the operator, wriggling with pain. "Yours is the first engine in here since the coal ran low, and there'll be a big delay to the already delayed trains if they come down here in a bunch from the wreck and find there's no coal."

"Tell him," bellowed Campbell, "that we have a 'leven-hundred engine, and can't go onto the chute."

"He says," grimaced the operator, "that you can leave enough cars between the engine and the cars you put up to keep the engine off of the chute."

Campbell hesitated for a moment, then turned on his heel, vaulted the counter, and ran down the track to his engine.

The engine watchman had by this time cleaned the ash pan of the engine, and was seated in the cab listening to the excited fireman's account of their record-breaking run.

Campbell choked down his wrath, and when he addressed these two his voice was as low and as sweet as he could make it.

"Boys," he began, "there's got to be some coal put up, and the train-crew has gone to eat." His voice faltered a little here, but he went on bravely. "We three can put it up, if you fellows will act as my brakemen; and, if you will, I'll give you four bits apiece."

The fireman and the engine watchman gaped in astonishment at the liberal offer, and eagerly accepted. They clambered back over the train, cut off six cars back of the engine, and Campbell ran down to the coal-spur, where his acting brakemen coupled on five cars of coal

They backed up to the chute, coupled on the five empty cars that were on the incline, and shoved them in on a siding. Again they backed up to the chute, this time with the engine special, and the cars of coal mounted the incline to the shed.

Campbell was still hot with anger because the trainmen had taken advantage of him, and he did not observe his usual

—WITH A MUTTERED CURSE, AS HE SAT DOWN IN A TUB OF WATER TO PUT OUT THE FIRE.

caution while putting up the coal. The cars mounted more swiftly than he supposed, and the last one was just entering the shed before he slackened speed.

Then his two brakemen came racing out of the shed over the cars, waving frantically for him to stop. He applied the air, but his helpers had neglected to connect it, and, before he could stop, two cars of coal plunged over the other end of the chute and flattened out on the ground thirty feet below.

The Italian coal-heavers tumbled out of the shed and scattered in every direction.

A grim smile showed plainly on Campbell's face as he released the engine and shot down to the level track.

The fireman opened the switch, and Campbell backed down to the train. He plucked out his watch and studied it intently.

"Four-thirty," he muttered, "and delay number three. The worst half of the wedding march is yet to come!"

In motion once more! The last half of the journey! This time the fireman had the shovel tied to his wrist, for he was determined not to be tricked into losing it again.

There were a few miles of level track before they came into the mountains, and they took them with a rush. By the time they struck the heavy grades the flues were leaking badly, and the steam-gage showed a gradual lessening of pressure. At last Campbell drew the throttle wide open, and turned to the fireman savagely.

"Can't you keep her hot?" he roared.

"You're working her too hard," complained the fireman. "The flues are leaking."

Campbell slid down from his seat and peered into the fire-box. Water was dripping down onto the fire in many places.

"Great Scott!" growled the engineer. "I wish I had some bran."

"I think," said the fireman, "that the car next to the head one is loaded with bran. I saw the advertisement on the side of the car; but you can't get it, going at this rate."

Campbell gripped the fireman by the arm until he wriggled.

"Get up there on my seat," he ordered, "and run her till I come back. Don't you dare slow down, unless it's around a curve!"

He turned and climbed swiftly over the coal, wabbled across the first car, and disappeared between it and the next.

The fireman shuddered, then turned his eyes resolutely to the track ahead.

Campbell slid part way down the brake-rod between the rocking, swaying cars, and balanced himself on the only step within reach. The end door of the car was sealed with a tin seal and cleated at the end.

He gripped the seal and tore it loose with one jerk. Then, half braced, half balanced, he kicked straight down at the cleat with all his might.

He knew that to miss it once would probably overbalance him and send him down to certain death; so each kick was well aimed. Four times he struck straight down with all his might before the cleat gave way and dropped to the track beneath.

He stopped to breathe a moment; then, leaning far down, holding only by one hand, he seized the catch of the door and pulled it open.

Just as he did so, the cars swayed apart in opposite directions and wrenched loose his hold. He balanced dizzily on the step a moment, then swung downward. A sickening feeling tore at his vitals; but, with a catlike turn, he managed to light feet foremost on the bumpers, where he clung for some time to regain his lost breath and quiet his nerves.

Sacks of bran filled the open car door, and he ripped one open with his knife. A stream of bran followed; and, taking off his jacket, he made a bag of it. Holding it under the stream of bran until it was full, he bound it tightly with the sleeves.

Three feet below, death nipped at his heels—but he was not thinking of that. He was growing a little vague as to why he was running all these risks to make time, but his determination was still the same.

Closing the car door, and taking the bran in his teeth, he swung out to the side of the car, and climbed to the top. He wabbled across the length of it again, over the coal, and into the cab.

Soon he was pouring bran into the

boiler. This stopped the leaking somewhat, and the needle on the steam-gage began to climb round to its accustomed place.

But now they were nearing the scene of the wreck, and were compelled to take the siding to wait until the liberated trains passed.

There was an agonizing delay of twenty minutes before the first train came in sight, and Campbell put in the time pacing up and down the track, muttering ineffectual curses at the waste of time.

Then there was another wait of fifteen minutes before all the trains were clear, and by that time Campbell was nearly mad with impatience.

He rushed out of the siding at great speed when he was liberated, and came very near leaving behind the brakeman who closed the switch.

Out in the open again, Campbell's loud-mouthed impatience gave way to silent, grim determination.

By this time the train-crew was getting a little used to fast running. Campbell's reckless pace did not frighten them so much as before.

NOT SURE JUST WHAT HAD HAPPENED, HE STOOD FOR SOME TIME GAZING AT HIS EMPTY HANDS VACANTLY, THEN AT THE ROARING FIRE.

He slackened speed not at all now, swinging around curves at a rate that took away the breath, while the downgrades seemed naught but a straight, dizzy drop.

Only when they came to the scene of the wreck did he slacken speed at all, and even here he exceeded the speed limit to such an extent that the section men standing near the track moved away to a safe distance as the cars swung by.

Darkness settled down at six o'clock. There was no moon. The headlight, which the fireman had lighted while they were at Little Grade, was burning badly, and threatened to go out entirely.

But there was no stopping to repair it.

One of the brakemen, who had taken one drink too many at Little Grade, now clumbed out of the caboose and over the top of the train to a seat on a brake-wheel, his lantern proclaiming his presence.

Campbell did not see this man for some time—not until they had passed the last telegraph office before entering Junction City. Happening to glance back, he saw the lantern suddenly shoot high in the air, drop to one side of the track, and go out.

At about the same instant there was a jar of tightening air-brakes, and the engineer was thrown through the cab-window. He turned over two or three times in his flight through the air, and lit on the loose soil at the side of the track.

He lay quiet for a few moments, partly stunned, then sat up and looked about wonderingly. He saw the engine a few rods ahead of him, standing quite still. Farther along he could dimly see a break in the train, and a dark mass at the side of the right of way, which he thought must be derailed cars.

Painfully he got to his seat and hobbled toward the rear of the train. He did not seem badly hurt — merely scratched and bruised and stunned. He remembered having such a tight grip on the throttle that when he went out of the

window it was closed before his hand was wrenched loose.

Lights appeared toward the end of the train as some of the trainmen came running forward. Campbell hobbled toward them, but was stopped by the overturned box cars. There appeared to be quite a number of them, and he sat down on the trucks of one, swearing fluently at the darkness and wondering where the fireman was.

"YOU CALL ME TO TAKE THAT FREIGHT TRAIN . . ."

He had forgotten the brakeman whose lantern he had seen go over with the wrecked box cars, but he remembered him now as he heard a groan from somewhere out in the darkness to the left.

The conductor and one brakeman came in sight and flashed their lanterns on the wreck. At sight of Campbell, both began to swear softly in awed tones, as though looking on a ghost.

"How did *you* get here?" asked the conductor at length.

"I fell out," confessed Campbell. "How many cars are off the track?"

"About five or six," answered the conductor. "Where's my head brakeman?"

Another groan from the darkness answered his question, and all started in the direction of the sound. They came upon the brakeman stretched out on his back in the sand. He sat up and blinked at the light as the men came up.

"Give me just one more drink," he begged, looking around in a puzzled sort of way. "What's happened?" he asked, after a pause. "Am I drunk, or dreaming? Or am I dead?"

"You've just had your toes over the ragged edge," said the conductor. "This rapid fire-gun of an engineer has put us in the ditch and near killed us all. How do you feel?"

The brakeman felt his left shoulder tenderly.

"My wing's broke," he declared, and scrambled to his feet.

They walked around the wreck, counting the derailed cars.

"I count five off the track," said the conductor, as they completed the circle. "Three cars more, and the caboose would have gone," he added.

On the track they found the fireman,

white-faced and very nervous, looking over the torn-up track by the light of a torch.

"Five rail lengths of track torn up," he announced as the others came up. "Is that you, Campbell?" he asked. "I thought you'd quit the job, by the way you left the cab."

"Well, this means trouble for some one," said the conductor, looking hard at Campbell.

The big engineer straightened.

"I'm going to take what's left of this train to Junction City now," he declared. "There's no telegraph-office between here and the Junction, so I'll run along in and head the wrecker out to you. Better put out your lights right away," he cautioned as he hobbled toward his engine, followed by the fireman.

"If you're not careful, this wedding march will be turned into a funeral procession," warned the fireman as they climbed into the cab.

But Campbell only gritted his teeth and opened the throttle.

The fireman plucked at his sleeve as the engine started.

"You'll have to hurry, or we won't make it," he called. "The flues are leaking again."

"Oh, we'll hurry, all right!"

As the engine forged ahead, Campbell glanced at his watch.

"Seven-twenty," he announced. "I'll have to hurry this wedding march along a bit, or it'll be late. This is accident number four. I wonder will there be any more?"

Slowly the remnant of "Extra, 1127" pulled into Junction City and came to a stop before the yard office. The engine was leaking badly again, making a puddle of water beneath her as she came to a standstill. The needle of the steam-gage showed there was but little steam, and this was fast decreasing.

Campbell climbed stiffly from the cab and made his way toward the open door of the yard office, where McDonald, master mechanic, and father of Nellie, stood looking critically at the engine.

Campbell was begrimed with coal dust; his face was streaked with blood, and over all there was a liberal coat of bran.

"You've played the dickens with that engine!" growled McDonald, as Campbell came up. "Look at her!" he cried. "She's leaking so fast she'll be dead before we can get her into the shops."

"Shut up!" snapped Campbell in a choked voice. "Call the wrecker," he ordered, "and get 'em out right away. I put five cars of merchandise into the ditch at Mile Post 438. Where's Nellie?" he asked.

"Why—why, is that you, Campbell?" gasped McDonald. "I thought you were tied up in Farnham."

"Where's Nellie?" repeated Campbell doggedly.

"Nellie? Why, she—why, you wired that you couldn't get out of Farnham, and I think Nellie announced to her friends that the wedding was postponed for a little time. I think she went to the theater with Willis Garvin this evening. Why didn't you wire us when you started?" he asked in great excitement.

"I forgot," said Campbell weakly, as he sank upon the step.

Mechanically his hand sought his watch pocket.

"Seven-fifty-seven," he murmured. "This is accident number five."

Suddenly he got to his feet.

"After you've called the wrecker," he said in low, decided tones, "you just hike home as quick as those legs of yours will carry you, and get ready for the wedding. Take the parson with you as you go by.

"I'm going down to the theater and get Nellie, if I have to storm the place. I'm also going to marry her to-night, or turn this town upside down. Now, hurry!" he added, and strode off toward the lights of Main Street with a step which had suddenly lost its limp.

McDonald gazed after his future son-in-law for a few moments in silence.

"Well," he muttered at length, "he's the limit."

The finest engine will run heavy if it is out of quarter be on the square.
—*The Master Mechanic.*

The Pumpkin-Vine Special.

BY MILES McKERCHER.

It Came Around the Curve Rather Unexpectedly, Just as the "Kid Crew" Was Communing With Nature and Thanking the Stars for Being Alive.

RAILWAY engineers take particular delight in running over hand-cars and velocipedes. Anyway, it has always seemed so to me. Perhaps they don't. Opinions differ. One thing is sure—they hit them sometimes. Once they pretty nearly hit us.

It was when we were repairing bridges and trestles on the Rochester and Winona division of the C. & G. W., better known as the Pumpkin-Vine branch of the Gerkwater.

From Utica to Winona the track is just the sort you would expect to see in a nightmare. It typifies what you read about Arkansas railways consisting mainly of horseshoe curves, S's steep grades, and trestles over gullies.

Stanley Wright was the foreman of our crew of five. We were all young—in fact, Wright himself was not old enough to vote. Other gangs called us the "kid crew," but I feel safe in saying that many of the older crews accomplished no more than we did.

One morning in the early part of July, 1907, we found it necessary to take a case of dynamite from Rollingstone on our "Armstrong private car." We were in the habit of usually stopping just before rounding very sharp curves to listen for any possible trains. As a rule, "extras" were few and far between on the Pumpkin-Vine. "Specials" always created surprise and comment among the natives.

The "regular" east bound had already gone through, and we were pumping our car around curves and over high bridges, talking merrily. We had just arrived at the conclusion that even if we did spend a good deal of muscle on the derrick and crane (not to mention the hand-car), perhaps, after all, our life on the road, free from care and worry, toiling lazily in one of earth's pretty garden spots, letting the early morning sunshine trickle down on us, "perhaps," we thought, "such a life, in spite of some slight disadvantages, was pretty nearly ideal."

Far were our thoughts from danger. Guess, then, our surprise when, coming around the last curve in a deep cut, we were suddenly confronted by a huge locomotive drawing two cars of horses and coming like a whirlwind.

She looked as big as a barn to us. A sheer wall of rock on each side, a ninety-foot trestle a few yards back of us—apparently no chance of getting out.

And a case of dynamite aboard!

We held our breath as Stanley applied the brake. Our first thought was to jump. Then common sense told us that to do so would be fatal—not only to ourselves, but to the train and crew as well.

There wasn't near time enough to reverse the motion of the car and run back until the engineer could stop the onrushing train, and we did not fancy being hurled off the high trestle with the probability of the whole train crashing down on top of us.

We glanced at each other in dismay. The cold sweat trickled down my back. We heard the locomotive whistle frantically, then saw the engineer dodge down low in his cab.

My heart beat furiously. With one accord we were about to abandon the car and run toward the train when Stanley, white as a sheet, but calm and with great presence of mind, almost screamed the order: "Pick up the car-r, boys!"

It seemed useless, but we had great faith in our young boss. Being in the habit of obeying orders we did pick up the car, and at a signal from him placed it on edge against the rock bank, Stanley meantime grabbing the explosive.

We were just about in time, too, for as the locomotive whizzed by, something caught my overalls, ripping them from the waist to the knee. It was a very close call.

Stanley gazed after the disappearing train and watched it out of sight. Then he fished out his dinky little pipe, leaned up against the rocks, and filled and lit it.

"I guess, 'by jinks," said he, "we ought to take a run down to St. Charles and recuperate our exhausted nerves." Stanley was great on speeches. "Hang it, you fellows look scared to death. Besides, I want to write a letter to Mamie."

So we took a holiday and rambled down to St. Charles. When our checks came on pay-day I can't say as I noticed any "lay-off" recorded, either.

Silent Heroes of the Rail.

BY ROBERT H. ROGERS.

HERO is a much-abused word. It means almost anything, from a man who saves a ship-load of people by brave and long-sustained endeavor to a matinee idol. We have made many in this country, and forgotten them within a week. Meanwhile, heroism walks among us daily, and we fail to see it.

Our monthly department, the Industrial Roll of Honor, proves this, and the article that follows adds further point to our belief that the man who does his duty simply and unostentatiously as he sees it, in spite of dangers and discomforts or actual suffering, is a very real hero in a very real, manly way.

Railroad Men of All Grades Who Have Faced Danger and Endured Discomfort in the Simple Performance of Their Every-Day Duties.

ONE night in the winter of 1907, at a few minutes before twelve o'clock, Engineer Champagne, of the New York, New Haven and Hartford Railroad, advised the night foreman at South Boston that the window glass was missing from the front door of the cab on his side of engine 809. This might appear a simple matter for the carpenter on duty to repair before the engine was due to depart for the South Station, and so it would have been did time permit.

The yard schedule, however, demanded that this engine must leave the roundhouse at 11 P.M. sharp to take out the midnight New York express, and the 809 was then over half an hour behind. Consequently, Engineer Champagne backed off the turntable with the pane knocked out.

It was seasonable New England weather. A wild blizzard from Cape

FOR OVER FOUR HOURS THIS MAN SAT FACING THE COLD AND THE HOWLING WIND IN ALL ITS FURY.

Cod way for the past twenty-four hours had been sweeping relentlessly west from Provincetown; and zero temperature, with the usual accompaniment of needle-like snow, conspired to make a wintry scene extending from Boston to the Grand Central Station. The street-car, and even the cab service, in the Hub, was practically suspended; and the few passengers made their way to the train with difficulty, breathing meanwhile bitter invectives against the east wind and all that it brought. Then they entered the warm and comfortable sleepers, and promptly forgot their passing discomforts.

Up forward on the big engine it was different. That front window meant a great deal to the engineer. It was his only protection against the driving snow and gale, the latter to be intensified by the giddy speed at which he must run; and to one familiar as himself with the prospect ahead, a hero's nerve was required to "pull out" without it.

For over four hours this man sat facing the cold and the howling wind in all its fury. When the train finally halted in the New Haven depot, where the 809 was changed for the New York division engine, he was in a state of exhaustion, and literally encased in ice. It is impossible to conceive what he must have endured on that long run of one hundred and sixty miles.

This is merely an instance of the silent, every-day heroism of railroad employees. Engineer Champagne would have been entirely within his rights, and would have been upheld by the company, had he refused to leave the roundhouse in South Boston until the damage had been repaired, but he knew that this could not be done in season to start on time. So he accepted the hardship and danger, and started on his run without a murmur, although the outlook might well have daunted the stoutest heart.

Turkish Bath in the Cab.

The story of the iron rail is so bestrewn with similar examples of devotion to duty that the record of a single road would furnish material for a volume. Unfortunately few, if any, are heralded in print, because these men are loyally reticent, and because they are grounded in

the belief that such inconveniences are merely incidental to their calling.

About two years ago the body of Patrick Collins, mayor of Boston, was being brought to his native city on train 72, popularly known as the "Federal Express." Two miles west of Providence the throttle-packing blew out of engine 806, which was handling the train.

The immediate result was to fill the cab with steam, followed by a continuous spray of hot, almost boiling water, which, as might be expected, selected for its target the fireman shoveling his coal.

Common sense, in view of the discomfort in the cab, dictated that another engine should be put on the train at Providence, and the 806 left there. For a moment Engineer Connors entertained this idea, because there was a relief-engine available at the Charles Street roundhouse, only a mile up the track, but he as promptly dismissed it.

"We've got the mayor's body aboard, John," he said to Fireman Sommerville. "There is a committee waiting in Boston, and everybody on the road and in the city wants the train in on time.

"Can you stick it out another forty-five miles? If you can't, I will call for the 1280 here, but we will lose fifteen minutes making the change."

Shoveled Three Tons of Coal.

While they were taking water, John reflected, and then told the engineer that he wouldn't mind a little thing like a wetting. The train left Providence with the leaky 806, and arrived in the big train-shed of the South Station on time to the minute.

The big locomotive, with its tolling bell, attracted little attention as the funeral cortege passed through other than this mark of respect by her crew, but had the mourners observed closely they would have seen two men as nearly drowned as it is possible for them to be who have not actually been submerged. The fireman was in the worst plight of the two.

From the time when the throttle-packing gave out he had shoveled nearly three tons of coal, and in depositing each shovelful where it belonged he had received the full volume of boiling water escaping from the ruptured joint.

The cab had been filled with steam to such an extent that even the towermen along the road observed it, and wired ahead, fearing there had been an accident. The men who stood for upward of an hour like specters in the fog received a letter from their master mechanic commending them for not giving up their engine at Providence.

Crippled, but On the Job.

The case of Engineer E. T. Parlett, of the Baltimore and Ohio Railroad, illustrates the extremes to which the disregard of comfort, even when it entails actual suffering, may be carried in order to "make the time." A short time ago, while engine 1330, on the 9 A.M. limited out of Washington for Philadelphia, was gaining speed after crossing the Susquehanna River, the reverse lever became unlatched, and flew back with a bang into the corner of the quadrant.

Sixty miles an hour was the mandate of the schedule, but so great was the strain thrown upon the lever by the moving parts when traveling fast it became necessary to reduce the speed in order to hook it back where it belonged.

As Parlett pushed in the throttle, and reached for the brake-valve to "pull her down," he felt a sudden sharp pain in his left hand. A glance showed that his first and second fingers were missing, and that his overalls were spattered with blood.

With the assistance of his fireman, Parlett restored the lever to its proper position and picked up speed again. Then he bound up the bleeding stumps with his neckkerchief, and threw the amputated fingers out of the cab-window.

It was still sixty miles to Philadelphia, but he never faltered, arriving at the Twenty-Fourth and Chestnut Street station on time. Then he promptly fainted from pain and loss of blood.

"My hand was resting on the lever when it unlatched," he said afterward, "and it went into the corner so quick that my fingers were cut off clean as by a knife, against the handle of the sand lever, I suppose. Why didn't I get off in Wilmington, or ask for another engineer there? Well, I don't know.

"She wasn't steaming very good, for one thing, and I knew that if she fell into strange hands, cranky as she was, she wouldn't get the train to the Reading on time, and that's what we are paid to do."

Overtime for a Hero.

Daniel Smith, an engineer on one of the Reading flyers between Camden and Atlantic City, has about as much nerve as they ordinarily put into a man. This has been shown without the excitement of a battle-field to urge his decision.

In a similar accident the reverse lever flew backward while his train was "doing her mile," about ten miles east of Camden. The engineer was found by the fireman unconscious in the rear of the cab. The latter shut off steam, and revived him with cold water.

When Smith reached for the refractory reverse lever he found that his left arm was broken. In spite of the entreaties of the fireman to stop and have the injury attended to, he ran the engine the remaining fifty miles, doing the necessary work with his good hand, and making his time. Then he was lifted from his cab and carried to the hospital.

No railroad company requires or expects such sacrifices from its men, but they seem part of the business, and have become identified with their calling. Certainly no official would have instructed John DeJerald, a Southern Railway engineer, to pull out on the main track ahead of a string of runaway freight-cars, with the forlorn hope of stopping them before they piled into a passenger-train a few minutes ahead, but this man took the initiative and did so successfully.

Ten of them, all heavily loaded, had escaped from the gravity yard at Lonsdale, two miles west of Knoxville, and were embarking on the down grade leading to the city when DeJerald saw them coming. He had just arrived from Asheville, and was waiting to put up at the roundhouse near by.

He motioned to the negro brakeman to open the switch and let him out, and by the nicest sort of calculation managed to have his hundred-ton "battle-ship" overtaken and gently run into by the following cars without damage.

Then, by a vigorous use of the air and sand, he "back-pedaled" the runaway to a stop, and quietly returned it to the yard, where was gathered an excited group of the yardmaster and his assistants in anxious speculation over the outcome.

"My time was up when I arrived from Asheville," was DeJerald's only comment to the former; "and I want an extra hour for this work. Charge it to switching cars in Lonsdale yard after completion of regular trip."

Thus was a thrilling incident calmly transformed into a matter of routine, with an attendant of forty cents for overtime. Had he not stopped the runaways, it is impossible to estimate the damage which would have resulted when they met in the crowded Knoxville passenger terminal, with the speed of a limited.

There is a peculiar pathos in the story of Fireman Marston, which is still talked about by railroad men on the Pittsburgh division of the Baltimore and Ohio. While he was firing a pushing engine on Whitehall hill, just outside of Pittsburgh, a few years ago, a telegram came to the Glenwood shops, in care of the roundhouse foreman, telling of the death of Marston's mother in a trolley accident.

No Time for Mourning.

The foreman, in the press of other duties, neglected to send the message to the young man. The latter was on the pusher that day and the next, when he was hurriedly called to fire the westbound Chicago express to Chicago Junction.

It was not until he had reported for duty that the sad news, now two days old, was conveyed to him. In the meantime only twenty minutes remained for the engine to reach the Pittsburgh depot, if it was to leave on time, and there was no other fireman to take his place.

Although dazed with grief over his unexpected loss, Marston went with his train.

"If you can wire ahead," he said, "and have some one relieve me at Newcastle Junction, for God's sake do it. Every mile is taking me farther away from my dead mother."

They tried, but failed, and he was

...ged to make the round trip of over four hundred miles. When he returned the next day the funeral was over.

Naturally the engineer and fireman, from their exposed position at the head of the train, and their consequently greater liability to bear the brunt of danger, become the heroes in the majority of these instances of inborn devotion to duty; but many similar examples can be found among the less exploited callings of the railroad.

There is not a roundhouse or shop in the country which does not number on its pay-roll one man at least who has performed some feat out of the common which, if properly presented, would transcend fiction. There was a boilermaker employed on the Baltimore and Ohio several years ago, at Baltimore, Maryland. John Rau was his name, and his special job was the "hot work" at the Riverside round house. Hot work means calking boiler-flues when they come in leaking, in a fire-box temperature of close to two hundred degrees.

HE HAD RECEIVED THE FULL VOLUME OF WATER ESCAPING FROM THE RUPTURED JOINT.

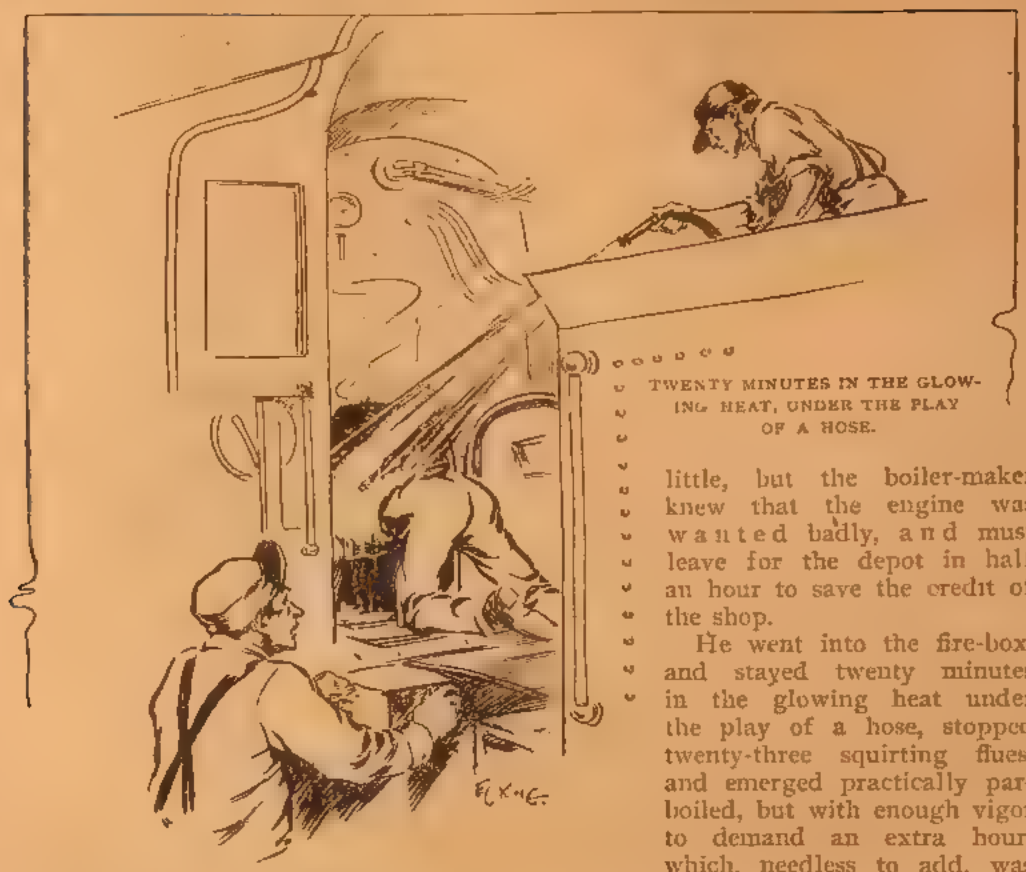
Ordinarily the boiler is well cooled before the boiler-maker begins, but sometimes the engine is badly needed, and time does not permit all of the precautions which might be observed for his comfort.

In this age of organizations and rights it becomes only necessary for the man to remark to his foreman that "things are too hot in there yet," and no one has authority to order him on the job.

It is said, however, in the case of Rau that it was only necessary to tell him the engine was wanted in a hurry, and he would calk flues under conditions which would nonplus a salamander.

One day a special was ordered in a great rush to take the president of the road to Washington. As usual, as every engine despatcher can attest, the call found them short of power. None of the few engines available were suitable to put on the train, and it became necessary to place dependence on the 1402, which was then in Camden station, and would shortly be over to the roundhouse

Preparations were made to clean her fire and get her around for the special at the earliest possible moment, but on



TWENTY MINUTES IN THE GLOWING HEAT, UNDER THE PLAY OF A HOSE.

her arrival her flues were leaking. The master mechanic and every one in authority sought to dissuade Rau from entering the fire-box, which had been hastily emptied of fuel, until it had cooled a little, but the boiler-maker knew that the engine was wanted badly, and must leave for the depot in half an hour to save the credit of the shop.

He went into the fire-box, and stayed twenty minutes in the glowing heat under the play of a hose, stopped twenty-three squirting flues, and emerged practically parboiled, but with enough vigor to demand an extra hour, which, needless to add, was thankfully allowed him.

So hot was the water in the boiler of this engine while the work was being done that after the leaks had been stopped she was run out of the house under her own steam.

REST-ROOMS FOR SUBWAY MEN.

ALL over the country the railroads are realizing that the way to have an efficient working force is to encourage among their men a "club spirit." The result has been the providing of rest-houses, libraries, and athletic organizations, to which the roads themselves have usually contributed largely, often financing the whole thing.

The latest addition to this system is the Interborough Rapid Transit Company of New York. It is announced that the company has appropriated fifty thousand dollars for the erection of six clubhouses at various parts of the city, namely, One Hundred and Fifty-Ninth Street and Eighth Avenue, One Hundred and Twenty-Ninth Street and Third Avenue, the One Hundred and Seventy-Ninth Street yard, Bronx Park and Third Avenue; Two Hundred and Forty-Second Street and Broadway, and One Hundred and Forty-Eighth Street and Seventh Avenue.

The buildings will be sixty-five by thirty-six feet, and will be equipped with shower baths, kitchens, restaurants, smoking, and reading rooms. It is stated that Mr. August Belmont has personally added ten thousand dollars to the appropriation for the purchasing of books, newspapers, and periodicals.

TREASURE OF THE WORLD.

BY STEPHEN CHALMERS,
Author of "The Cataclysm," "A Daughter of the Armada," etc.

A Prophesy of Death and a Mortgage on Life, with Love Lurking in the Background.

CHAPTER I.

The Man on the Straw.

PHILIP SAND left the doctor's office with an amused expression playing about his quietly humorous mouth. In this workaday, uneventful existence there is something novel, highly interesting, and diverting in the sudden announcement that one is about to pass away.

"I wouldn't care to promise you a year," was Dr. Lauriston's way of conveying the information. "Of course, I may be mistaken; but, from the apparent progress of the trouble in the last month or two, I feel justified—in fact, it is my duty to warn you."

"Quite so," said Philip Sand, with a note of sympathy for Philip Sand.

The announcement was so startling, so all-upheaving, so sweeping, that it did not strike Philip as being anything which really concerned him personally. When a man lives for thirty years, hearing of deaths every other day during that period, he begins to regard death as something quite abstract—something which is common to every other mortal, but a thing apart from his own matters.

That is why it amused Philip Sand to be told that he himself was about to pass away.

Of course, Dr. Lauriston might be wrong. He probably was wrong. In fact, Lauriston was often wrong in his raven-like predictions. It was old Philander Sand, Philip's father, who once said:

"So long as Lauriston says I'm going to die, it's all right."

Old Philander did die eventually. Perhaps in the spirit world he had time to reflect on the matter. If so, he probably attributed his mortality to the fact that for once he had called in another doctor who had distinctly agreed with Lauriston.

All of which is aside from the gravity of Philip Sand's condition; but Philip's own thoughts were running in the peculiar strain of levity which flows through a man's brain when he is confronted by that fact which destroys the sense of fitness. Philip Sand felt that everything was a misfit that morning—everything was ridiculously out of joint.

He, feeling in the prime of health—except for a little cough, which left him damp and flushy—had been told that he had not a year to live. Philip chuckled as he turned up Fifth Avenue toward the park. Somehow, the park called him just then. He wanted to get to the green trees and the cool water quickly—just to sit and look at them, as if they would give the lie to the prophecy.

His thoughts wandered as he strolled up the gay thoroughfare; but all the time the undertone was Lauriston and what he had said, and what he, Philip Sand, thought of Lauriston and what he had said. Among medical men Lauriston was playfully referred to as "Lugubrious Larry." Yet he was the first specialist in the diagnosis of pulmonary troubles.

Philip's mother had been deadly afraid of him. Philip's father had loved the gloomy physician. His gloom had amused Philander. Old Philander used to say:

"The number of departed that Lauriston meets when he walks down the avenue would scare any ordinary man. But, maybe, he thinks they are ghosts."

And there was another story that used to amuse old Philander Sand, and the son chuckled as he remembered his father's way of telling it. One of Dr. Lauriston's patients lived in a boarding-house. The nurse slept in the next room. She needed sleep, but the patient couldn't afford a relief nurse. Lauriston solved the difficulty by getting a tin horn — the kind you blow on election night—and placing it by the bedside.

"If you feel yourself sinking in the night," said he to the patient, "just blow the horn and the nurse will wake up."

The scheme worked excellently. The patient had a sinking spell in the night. He blew the horn with his last breath—and the nurse woke up.

"Every man his own Gabriel!" old Philander used to add, with a chuckle.

But — supposing Dr. Lauriston was right, and Philip Sand was in danger of losing his life. He was well aware that the cure for his trouble had not yet been discovered; and that, once the disease had taken a firm hold, it was only a matter of time.

It might be, as Lauriston had said, a year, or it might be five years; but the fact remained that he had the trouble in his lungs, and that was enough to cause sober reflection.

It came to Philip all at once, just as the park arose before him. The green trees and the babies in their perambulators suddenly reminded him that the sap of life was beginning its annual rejuvenation. Everything seemed green and young and fresh. The very air breathed of life—new life; even in his own veins he could feel it. Yet the fiat had been issued. The blight also was at work.

But Philip was not of the brooding temperament. When he was confronted by any fact he adapted himself to it. If it were pleasant, he accepted it with the quiet gratitude of one who does not spend what he has recklessly. If it were unpleasant, his philosophy covered it, or he trusted to the alleviating circumstance that would balance the misfortune.

But this was something new — the something which the human mind considers with surprise and non-comprehension. He had about one year to live. All at once he could hear all the clocks in the universe ticking in riotous unison, and his faculties became strangely alert to the little things of the business of living.

He was filled with the idea that he must at once balance his books and, realizing the liabilities without much figuring, glean every possible asset to cover the bankruptcy. He settled himself to the task.

He, Philip Sand, came of a very old family. Its history dated back to another land, and could be traced through its history to a dim time when sentences covered eras. His grandfather, Septimus Sand, had come from that other land, wiping out his connection with it by his own personality; for Septimus was a dreamer.

Septimus loved old books, old jugs, old documents. He was a ne'er-do-well in that other land. Here he was a queer old gentleman who had plenty of money, but thought more of a scrap of parchment than of a government bond. His only son, Philander, was the very opposite.

From some mysterious source Philander had acquired an intensely commercial spirit, allied with a grotesque sense of humor. Philander met Philip's mother at Dodworth Hall, New York, when Artemus Ward lectured there.

Philip's mother had observed Philander in the throes of exquisite mirth over little points which escaped a large part of the audience. Philander's laughter was so human, so genuine, so infectious, that the great humorist finally fixed him with his eye and said in his melancholy manner:

"I would remind the jovial gentleman in the third row that I did not come here to be laughed at."

That completely finished Philander Sand. And Philip's mother-to-be

laughed, too—not at A. Ward, but at the "jovial gentleman in the third row," and remarked to her own father that "a man who can laugh like that must be a pleasant person to live with."

From her gentleness of spirit—for A. Ward was the matchmaker—Philip acquired his philosophic, thoughtful temperament. From his father he acquired good sense and that irresistible sense of humor. But the predominating strain of his character was the introspective way of his grandfather, Septimus, together with that old gentleman's love of lore, pictures of the past, and the glamour of book-life.

After Philander's death — Philip's mother died when the boy was young - the lad found himself the last of the Sands. The commercial Philander had left a fortune, invested, which Philip left to take care of itself

Unfortunately, others took care of it, while Philip fished, smoked his pipe, and in the evenings explored his grandfather's dog-eared treasures. The fortune suddenly collapsed, crashing to earth so violently that it carried the house of Sand with it. Philip saved the old books and curios and went to work, but he was not built for commerce.

He remained away from business for days at a time. He felt ill, although he was not sure whether his illness was temperamental or physical. Now he knew it was both.

Here was his position. He was without a tie in the world. His heart was whole and untrammeled. He was free to roam the wide world, but the first move meant car fare, at least; and car fare was scarce.

He was unfitted for drudgery by temperament, and now he was unfitted physically. He had contracted the disease that means immediate cessation of confinement. What was he to do?

"In short," reflected Philip, "I am of no use to any one. I ought, perhaps, to commit suicide; but I have such a faculty for enjoying life that I see no use in cutting off my nose. If I only had enough money to make the last year worth while. I *feel* so fine."

His idea of making the last year "worth while" was not that of desperation. The white lights and the reckless, glad suicide did not appeal to him. He wanted to live—a healthy, spirited life.

In other days he had vowed to travel. But, like the man who did not read Dickens until he was sixty, he kept that joy until his mind was mature and he might be fully appreciative of the world that he was to see and study.

Now he called himself a fool for not having traveled while he had the money. Now that life was a matter of three hundred and sixty-five days, or less, the blue seas had a strange fascination, and the spring air of the park suggested green islands with coral beaches and opal inshore waters.

Couldn't it be done? There was only one thing which was an asset — his insurance. Unfortunately, that fifty thousand dollars would not be available for ten years, unless he died in the meantime. True, he might cash in the policies.

They should be worth something after ten years. They were on the twenty-year payment plan, but they would hardly be worth a sum large enough for an extended tour of the world with never a thought of cost—for the year must be free from all worry, and the year must embrace everything worth seeing, worth tasting, worth experiencing.

There were so many things that he would like to see, taste, and experience—the many things he had planned when he reveled in the romantic suggestions of his grandfather's old papers. Recently he had been reading an old book about Panama.

He would like to see Panama -not the canal works, but the ghost Panama, from the Spaniard with his trains of ingot-laden mules, and the buccaneers with their red cutlasses and firebrands, down to the gold-crazed immigrants sinking beneath the yellow scourge along the jungle trail.

Then Philip Sand sank into a day-dream, as he so often did. But this day-dream had an idea through it. He imagined he was back in the old library again. A rotting old ledger, which was now in his bedroom in Forty-Ninth Street, was open before him. It was an old log-book which his grandfather had picked up somewhere.

The author of that log-book and the

ship whose journeyings and adventures it chronicled were not known to fame, but the book was a fine specimen of a sailor's diary. It contained, besides positions and weather remarks, the philosophic reflections of a lonely captain.

On one page, as Philip recalled, was an attempt at poetry — a fragmentary pæan in praise of somebody's good looks:

> Wherever I go on the raging main
> I see your brown eyes, Martha Lane.

And on another page there was an account—cruelly realistic in its very crudeness—of the death of the ship's boy, Harry Breakspar, and of his burial at sea — "and Dick Gibby, the ship's sweetheart, blubbered like a babby."

But the page that arose before Philip Sand's mental eyes as he sat on the park bench was worded something like this:

> Gibby's father sailed with him, and he told Gibby that the treasure was still where they putt it. The buccaneers never buried treasure in the Pacific; the Atlantic was handier, near England. Gibby says it was never put down, so the story got wrong by word of mouth. It never were putt on the Cocos Islands at all. Gibby says it were putt on the Caicos, which islands are among the Bahama reefs, and hard to find, because they are changing names all the time. It may be true. I think Gibby's right, and his father sailed with him. The pig jumpt overboard this morning.

"It may be true. I think it is. And Gibby's father sailed with him," echoed Philip, without knowing or caring much who Gibby's father was or with whom he sailed.

Philip remembered the day his grandfather, Septimus, showed him that passage. To old Septimus the matter of knowing where a million dollars' worth of treasure might be lying around did not matter much; it only pleased the old gentleman to think that a secret like that enhanced the value of the curious log-book.

Many a time Philip had turned to that page and studied the communication of Gibby. The thing was like an opiate that lulled him to romantic day-dreams. In his dreaming he had seen the old captain writing, with his tongue out, the words that Gibby had told him. Then he had drifted back to the buccaneers and the galleon and the sea-fight.

He knew quite well that it was a hard engagement, lasting all day; and the scuppers poured blood, which clotted as it trickled down to the water. And he knew that the pirates boarded the Spaniard, made the *dons* walk the plank, ill-used the women, broke into the stores and got drunk, transshipped the treasure of Peruvian ingots and miscellaneous loot and sailed away after scuttling the Doña Maria del Something or Other.

They may have set fire to it, but Philip knew better. They scuttled it. He saw them do it.

By and by they came to the island—the Caicos. They took the treasure ashore and buried it. Philip knew the spot quite well. He had seen them bury the treasure. He had helped pile the ingots himself, and Gibby's father had got very drunk and shot a dog which wasn't harming anybody. Gibby's father was as coarse a man as ever broached a rum puncheon.

Then they had a great barbecue and fell asleep on the island when they were hoarse with singing and unable to stand on their legs for another jig. And Gibby's father fell in the fire, and the smell of burning flesh awoke him, and he spat in the fire to show his contempt for its entire proceedings.

Philip Sand awoke. The ducks on the lake were quacking. He had thought they were wild ducks in the swamp inside the beach; but they were quite tame, and a little girl was throwing broken crackers to them. The green was still on the trees; the air was wine-like and living as ever, and a policeman in a new uniform was strutting along the walk, swinging his locust on a thong twisted about his wrist.

If only he could go after that treasure —not for the treasure's sake, but for the joy of the dream. If only he had the money which had been his a year before! He would charter a steam-yacht and a crew, and sail in search of that island which he knew so well, and he would go to that spot where his own hands had piled ingots and where he had helped Gibby's father to his feet. He felt sure that the burned spot where

the barbecue had been held must still show.

The call of life was growing stronger every minute. Money! Money! He must have money! And again that mocking fifty-thousand-dollar bond arose before him, and it pointed a mocking 0 at him, as much as to say:

"You can have all the 0's, but the 5 is not available until you are dead! Do you understand?—*dead!* And you'll be dead in a year, and it will all go to some one you never heard of."

Philip rose to his feet and began to walk rapidly through the park. Was there no way he could get some of that money? He would mortgage his soul; a pound of flesh; his life, like *Faust* or *Lorenzo,* to the *Devil* or *Shylock,* or anybody who cared to have it.

Surely there was some *Shylock* who would be willing to make a fabulous profit on a year's investment. Surely any business man whose practical mind overlooked silly sentiment would take a plunge on a man whose death in a year would mean fifty thousand dollars hard cash.

Philip Sand stopped short at a point where two paths diverged. He had arrived somewhere, and the two paths suggested the pause. He had solved the problem. He would mortgage his life, the mortgage to be foreclosed at his death, or in three hundred and sixty-five days.

The other man's profit mattered little to him as long as he, Philip Sand, could raise enough to go treasure-hunting, to sail the seas, taste the salt air, feel the vessel sway and heave on the billows, see the green islands and the coral beaches and opal waters.

To find the other man! That was all. Presently Philip Sand took the path to the right, walking rapidly toward the park exit. He had remembered a name — the name of a *Shylock* — Merton Scragg!

CHAPTER II.

The Gamblers.

MERTON SCRAGG had the reputation of being the meanest man in the United States. Whether he was or not, the title was his, and it is the kind of reputation that is easier to maintain than lose.

Of course, the man's name was against him. So was his appearance. A man with the name of Scragg could not fail to be mean, any more than a Gamaliel Simpkins could achieve military glory.

Merton Scragg looked the character that was popularly attributed to him. He was tall, big-boned, lantern-jawed, and hungry-looking. There was, however, a kindly eye in the man's head. Those who had seen that eye, when it was not fixed upon a victim with steely, gray-blue keenness, declared that old Merton was "a good soul at bottom."

Whatever might be the truth of it, it was common gossip that Scragg would never buy a newspaper if he could pick one up that had been dropped in a Steenth Avenue car. A Steenth Avenue car is particularly mentioned because Merton Scragg owned the franchise and the car-line that ran on Steenth Avenue.

Although the Steenth Avenue cars did not run within twelve blocks of the man's Wall Street office, Scragg would walk the intervening distance in order to save a nickel; or, at least, to prevent any other street-car company from getting the five cents.

Perhaps there was even some foundation for the story that Scragg would not even pay his nickel on his own line. The conductors knew him and never dared ask for it.

It is possible that there was a great deal of pure fiction about the stories told of Scragg's meannesses, for the man's life was as close as his fist was said to be.

However all that may be, the man attended strictly to his own business, turned over every cent until it became two, appeared at his office every morning at ten sharp, worked steadily until five in the afternoon, went up-town in a Steenth Avenue car as far as it would take him, and then disappeared until next morning, when the car would pick him up at the same crossing.

He was enormously wealthy; there could be no doubt of that. The man who had never been caught in the market for any large amount; the man who was never known to spend a penny on luxuries, and who even wore a celluloid

collar; the man who had saved and invested every cent since he made ten dollars out of a brush and a tin of shoe-polish, was certain to have a large capital somewhere; and never by word or action did he deny it himself.

Just where and how Merton Scragg lived, no one seemed to know or care. As the old skinflint refused to make himself interesting in the public mind, he even escaped the attentions of that creator of personal interest, the Sunday newspaper.

In the directory he appeared as "Scragg, Merton — Wall Street," and that was all. If his residence appeared in the directory, it must have been under some other name.

About noon that day Merton Scragg was about to put on his faded, green derby hat and slip around to a quick lunch for the coffee and buns which constituted his midday meal, when his clerk handed him Mr. Philip Sand's card.

"Show Mr. Sand in," said Scragg, scratching his chin.

From a pigeon-hole in his brain he drew data regarding the Sand family and glanced over it on the instant. He knew the Sands for an honorable, quiet family, although he was under the impression that they were all dead. The last he had heard of them was when the Sand estate had gone smash in the panic and—Ah, yes, there was a son. This was the son.

"How-do, Mr. Sand," said he coldly, waving a long, bony hand in the direction of a prim, straight-backed wooden chair. That chair was a part of Scragg's business policy. If the business was important the caller would not mind its discomfort; if otherwise, it urged Scragg's inhospitable reception.

"What can I have the pleasure of doing for you, Mr. Sand?"

"I wish to borrow twenty thousand dollars, Mr. Scragg," said Philip, his eyes bright and his manner slightly nervous.

"I am not a money-lender, Mr. Sand," said Merton coldly. "Did you wish to sell me a bond?"

"Yes—that is to say, I wish to raise twenty thousand dollars on a bond which will be worth fifty thousand dollars within a year."

"You have the bond with you, I take it?"

Philip laid the insurance policy on the financier's desk. Scragg took it up, and examined it with cold eyes for a few minutes. Then he folded it up, replaced it in its envelope and handed it back to Sand with the remark:

"This policy will not be mature for ten years, unless you should happen to die in the meantime."

"Unless I should happen to die in the meantime," echoed Philip quietly. "Mr. Scragg, I shall explain my position."

He did. He pointed out that he had been given one year to live. He wished to enjoy that year of life. He had no assets, save his policy, which was a perfectly sound bond. He had no relatives near or dear enough to whom he would care to will the fifty thousand dollars.

Mr. Scragg might have the balance of thirty thousand dollars as well as any one else, and more than any one else if he would be willing to speculate to the extent of twenty thousand dollars. Would Mr. Scragg be willing to advance that sum?

"Suppose you did not die?" said Merton Scragg coolly.

"I have little fear—hope of that," said Sand. "I have tuberculosis of the lungs, and the first specialist in the city has given me twelve months."

"But suppose you did not die?" reiterated Scragg monotonously.

Philip was silent. He had not thought of this possibility, save in connection with Lauriston's many unfulfilled prophecies. In his own case he had no doubt of the truth of the physician's prediction.

"There, of course, is the risk," said he feebly.

"Which I am not prepared to take," said Scragg, with a note of finality and dismissal.

Philip rose to his feet, but he promptly sat down again, his face slightly pale and his lips compressed.

"If there was no risk—you would be willing?"

Scragg glanced at him for the fraction of a second.

"I do not care to commit myself to a definite reply to that question," he said calmly. "I do not quite understand."

"Mr. Scragg," said Philip, in a tone of anxiety and sincerity, "I came to you because you had many business dealings with my late father. You know that my name is synonymous with honorable business methods. I may have more than a year to live, but at present I have no available money. I am willing to take the risk of being alive three hundred and sixty-five days from now, if you are."

"*You* are willing to take the risk?" said Scragg. "Speak plainly, Mr. Sand," he added almost peevishly.

"There is no suicide clause in that policy," said Philip quietly.

Merton Scragg frowned and quickly replied:

"You ask me, Mr. Sand, to compound a felony."

"I do nothing of the sort," said Philip sharply. "There is only a personal principle involved, and it does not concern your hereafter. For the rest, the insurance company which issues a policy advertised as without lien or special clause is merely speculating in one of the many ways of speculation."

"Mmmm!" hummed Merton Scragg, looking at the wall with an interested light in his gray-blue eyes. He was silent for a full minute, then he said: "What, then, do you propose?"

"I propose to make over to you this insurance. Better still, in consideration of twenty thousand dollars received, I propose to draw up a will leaving my entire estate to you. I am also willing to enter into any contract which you may wish to make, in which I shall agree to be dead before the expiration of three hundred and sixty-five days."

Merton Scragg turned his steely eyes upon the younger man. When he spoke his tones were clear-cut and significant.

"You agree to be dead." It was more a statement than a question.

"I do. I will sign a paper to that effect."

"Not with my consent," said Scragg incisively. "Such a contract would be of no use to me and would not be upheld by any reputable court. Besides which the existence of such a document would help you more than me, should our interests clash at the end of the period suggested."

"I hope you do not mean to insinuate—" began Philip.

"Tut, tut!" Scragg exclaimed, waving an impatient hand. "I never insinuate. But life is sweet—even to me, Mr. Sand." And he smiled a slight, sad smile. "That was not in my mind. Indeed, your word is worth more than your bond. If you are still of the same mind, I shall accept the risk, Mr. Sand."

"You—you will accept!" stammered poor Philip. For a moment his brain was awhirl between the prospect of his dream being fulfilled and the certainty of his doom, the seal of which he was about to affix with his own hand.

"I think that was what I said, Mr. Sand. You will please to draw up your will, naming me as sole legatee and sole executor. You will also please leave this insurance bond in my safe. In return I shall give you twenty thousand dollars in cash, the condition of the transaction being that you will be dead before the expiration of a year."

"Meaning, of course, that if I should not die naturally—"

"Mr. Sand, I think we have said enough," said Scragg coldly.

"Very well," said Philip, shrugging his shoulders. "I was only proposing fairness to you. Can we close the transaction now?"

"No. It is my lunch hour," said Scragg firmly, "but I shall be back in—" He looked at the dollar watch again and made a calculation. "—in seventeen minutes."

So saying, Merton Scragg put the faded, green derby hat on his head and held open the door for his client. A few minutes later, as the financier walked swiftly up the street on his daily coffee-and-buns routine, Philip, standing on the steps of the office building, watched his progress with a queer desire to laugh.

"I wonder," he wanted to say aloud, "what that queer old skinflint would say if he met Gibby's father!"

CHAPTER III.

Chasing a Dream.

PHILIP SAND had the blessed faculty of making the best of things. By the time he had the check

for twenty thousand dollars in his hands, he had quite dismissed the fact that he had mortgaged his life to Merton Scragg, and, possibly, his soul to the devil.

He gave as little thought to the moral as to the material aspect of the matter. All he cared to remember was that he had twenty thousand dollars; his to do with as he saw fit, that he had at least the present in which to enjoy himself thoroughly, and that to-morrow would take care of itself, even if next year did not.

Naturally, the man who had dreamed the dream of Gibby's father and the treasure was an adept at the game of "make-believe." For the first few hours after he received the check from Merton Scragg, Philip just wandered about the streets of the city, thinking, from the loftiness of his suddenly and queerly acquired wealth, what fools these other mortals were.

He found himself wondering what interest those worry-faced persons found in life. The same old drudgery day after day, month after month, year after year. Better a year of sheer life—spirited living—than a half-century of this droning, prosaic existence. What if death came at the end of the year?

"I will have lived, at least," quoth Philip to himself. "Sooner or later they'll die, too—'unfreed,' as Arnold says, 'having seen nothing; still unblest.'"

It may be difficult for some persons to understand the spirit which was upon Philip Sand that day, when all his doubts had become certainty; when by the acceptance of the twenty thousand dollars which was to make life pleasant, he had sealed his doom either by natural death or suicide. It was the spirit of the French patriots who ate, drank, and were merry the night before they rode in the tumbrels. It was the spirit of the man who, having determined to commit suicide, decides to spend the interval in amusing violations of the law.

Such a man is dead, as far as the world's concerns are his. He can look upon human foibles with tolerant indulgence. The old ache of life has gone from him, for with one fell resolution he has wiped out the source of all aches. Between the acceptance of Fate, with the attending resignation and the execution of his resolve, such a man is as free from the little discomforts of life as a condemned prisoner who can have what he likes for breakfast on the day of his star performance in the electric-chair or on the rope's-end.

There was nothing desperate, however, about Philip Sand's state of mind. He was, on the other hand, quite interested, quite amused, quite satisfied with the condition of affairs. He felt that he had made an excellent bargain with Merton Scragg, and that Scragg had made an excellent bargain with him.

If any one was to suffer it would be Philip Sand, and Philip Sand was delighted at the development of the business. The prisoner was having his unexpected luxurious breakfast, and the ham and eggs tasted good.

For hours he continued to walk about the streets. The shop windows attracted him as they would attract a child, or an overgrown boy. The sun was shining with spring fervor, and the world was good.

Philip strolled along the water-front late in the afternoon, and here his enjoyment of the first delights of the venture reached its highest. He smelled the river and the sea. He caught a whiff of rum at one wharf, West Indian spices at another, New Zealand kauri at a third, and the air was always tanged with the odor of pitch, resin, and pine.

It was one of the most adventurous day-dreams Philip Sand had ever enjoyed. When he returned to his room in the evening the dream was as a continued story, through which paraded the old captain—with the log-book under his arm and his tongue stuck out, and Spanish *dons*, and pirates, and Harry Breakspar, who was always dying to the tune of a shipmate's "blubbering." And, of course, Gibby's father drank rum and swore all night, until Philip Sand lost patience with the old scamp and woke up laughing.

Philip's first reflection next morning was that "action" must be the motto of the day's doings. He had drained the cup to the dregs. Now he must have a little taste of material pleasures.

He wondered how he would go about the business of chartering a steam-yacht.

He might go into the office of some shipping-man and clear his throat and say, quite coolly—for there was no use hemming and hawing about a necessary piece of business:

"I want a reliable steam-yacht; also a steady captain and a sober, industrious crew. When can they be ready?"

Then Philip had to laugh heartily, for that grotesque heritage of his promptly made the imaginary shipping-man answer:

"Why, certainly Thomas, show the gentleman a few steam-yachts. And, possibly, sir, we might show you a string orchestra through, perhaps, you would prefer a steam-all-sp[illegible]"

And yet Philip Sand thanked God that he was a dreamer with a sense of humor. He *lives* who dreams and has the blessed faculty of risibility. Every detail of his doings in the three hundred and sixty-four days to come must be fraught with similar delight. And so they were, at least, at the beginning, from the negotiations for the steam-yacht to the interviews with the yacht's captain, to whom he whispered the magic word:

"Treasure!"

The only cloud on Philip's horizon these days was that things moved too fast. Not that every moment was not fraught with pleasure, interest, and quiet excitement, but his twenty thousand dollars oiled the wheels too well. The yacht was chartered with despatch and ease. The steady captain and the sober, industrious crew appeared as by magic. In two weeks all was ready; yet, up to this time there had not been the shadow of a difficulty, or the least sign of a villain's entry. It did seem to Philip that a villain was all that was required to complete the cast of the play which was about to begin.

That was the reflection of the playful Philip, the grandson of the dreamy Septimus; but the son of the practical Philander thought better and more wisely. Not even to Captain Pearce, of the steam-yacht Chameleon, did he divulge the secret of the treasure's real whereabouts.

"We are going to hunt for the Cocos Island treasure," said he to the shipmaster. "I have a chart which differs in many respects from the alleged charts and plans and dying statements upon which so many vain attempts to recover gold have been made. But for the present, captain, I am sure you will agree with me that I had best keep my information to myself—at least, until we are at sea."

"Quite right, sir," said Pearce. "Sealed orders tell no tales in port."

"The Cocos Islands are about a few hundred miles to the west of Panama, are they not?"

"About seven hundred, sir—roughly speaking."

"And as the canal is not yet cut through, it will be necessary for us to make the long voyage through the Strait of Magellan."

"Yes, sir. It was not my business, sir," added Pearce, "but I wondered, when you first spoke of the Cocos Island treasure, why you chartered a yacht here instead of at Frisco, say."

"I have a very good reason for my course, Captain Pearce," said Philip, with a smile. "That reason I will reveal to you when we are at sea. Besides that, if we were going to the Cocos Islands and started from Panama Bay on the Pacific side, our destination and plans would be suspected, especially as, at this moment, I learn by the newspapers, there are no less than two other parties engaged in the hunt for the Cocos Island treasure."

Captain Pearce nodded his head wisely. He wondered just what that differing information as to location of the treasure might be. But he asked no questions.

"My plan, then," said Philip finally, "is this. You will proceed at once—without me. I shall join you at Colon in a week or ten days, when I hope you will have the Chameleon spick and span. I hate worry, Captain Pearce, and the run to Colon will give you an opportunity of getting in sea-going shipshape."

"Aye, aye, sir," said Pearce, thinking that he understood the rich man's horror of the breaking-in process. "In a week or ten days. You will come by the regular steamer, I take it."

"By the regular weekly steamer—the Latin-America line. I should be aboard the Chameleon in ten days."

Next day the Chameleon sailed out of Sandy Hook and nosed south, Captain Pearce filled with satisfaction, for this was a "soft job"—no loading, no bickering with customs agents, supercargoes, etc.; nothing but fine-weather sailing, fat living, white decks, paint, and polished brasswork. And there was always good pay, a spice of romance, and maybe a bit of money on the treasure, although not for a moment did Pearce dream that Philip Sand had any more definite information as to an indefinite treasure than scores of others who had tried for it and failed.

Philip laughed heartily the evening of the Chameleon's day of sailing when he picked up a late afternoon yellow and read a "full" account of the yacht's departure and her proposed destination.

"It was learned on good authority," said the newspaper, in that pompous flat-is-a true-story style which defeats veracity, "that the Chameleon will touch at Colon for supplies, then 'sail for the Azores,' although it is a fact that she will sail through the Strait of Magellan and head for the Cocos Islands in search of the Spanish treasure buried there.

"The yacht has been chartered by a private company, composed of New Yorkers, several of whom are well known in social and club circles.

"Every effort has been made to keep the yacht's real destination and purpose secret, but when it was learned that the Cocos Islands figured in her itinerary it was easily surmised that the Azores was a blind."

"Good!" laughed Philip. "I knew it would leak. Pearce and his men will leak some more at Colon, and then—ho, for the Caicos! Was there ever a treasure-hunt or a treasure-story that didn't leak? It's human nature, and Pearce is just human."

Two days later Philip Sand sailed on the Latin-America liner Revuelan, for Colon. It was perfect weather; and when the sun is shining upon a quiet sea, there is no more soothing thing to the spirit than the white decks and polished rails of a tropic-bound steamer. The very course of the ship suggests that the days will grow in beauty, calm, and sunshine.

From the old log-book Philip had torn, not without a qualm, the leaf of the diary pertaining to what Gibby's father told Gibby and what Gibby told the captain, who wrote the pæan in praise of Martha Lane's brown eyes.

There were only four women on the ship. One was a negress bound for Colon, another a Chilean lady on her way to Valparaiso, *via* Panama. The other two were Americans—a Miss Verina Harding and a Miss Sharpe. Apparently, Miss Sharpe was the young woman's mentor, chaperon, and companion; for at seemly intervals she checked Miss Harding's spirits with a stern face and an unutterably reproachful:

"*Verina!*"

There were a number of male passengers. Most of them were very ordinary mortals—some so ordinary that they were interesting. There was a Jamaica orange-planter with asthma, who wheezed out his opinion that the American tariff was ruining the Jamaica fruit trade. There was an automobile agent, who paced the deck at a furious gait, trying to accelerate the speed of "this old tub."

There was a Venezuelan, who proclaimed himself "the Cattle Prince of South America," and raved of the day when a South American League would wipe the *Gringos* off the Southern continent; and there was an English engineer, bound for Bolivia, who listened patiently to the "prince," and said: "Really! That is most interesting."

But the character which appealed most to Philip Sand's sense of the ridiculous was a little "drummer," who gloried in the name of Mr. Theodore Higgs. Higgs was about five feet four inches in height, and he was built in proportion. He had the tongue of a remnant salesman and the nimbleness of a dancing-master.

"I am sole representative for South America and the West Indies," said he to Philip Sand, "of the Kurve-Kut Korset and the No-Kut Klip. I see you use the ordinary clip for your tie, Mr. Sand. *Don't do it!* It spoils the silk of the scarf, and bites into the material of the shirt-front.

"Use the No-Kut and you will effect a saving in linen. It can be used as a

[illegible]p, a sleeve-clip, and can be attached to the ordinary gentleman's garter without damage to the sox. Not doing business aboard ship, of course; but let me present you with a No-Kut Klip."

"Good Lord! I wish you were a woman!" he exclaimed on another occasion. "You see that Miss Harding?" Higgs rolled his eyes and moistened his lips with his tongue. "Can you beat that? Take in the lines of that woman's figure. Observe the sweep from the tip of the bust to the curve of the hip.

"She wears the wrong corset, though, if she only knew it. If that girl wore a Kurve-Kut, she would have the whole ship at her feet. The Kurve-Kut does not compress the figure. It merely holds the outline of the natural shape. It yields to the movement of the body without creasing or wrinkling the garments. It can be worn to the same advantage with the thickest traveling costume or the flimsiest silk. Miss Anna Held—"

"I don't think Miss Harding would appreciate your public enthusiasm, my dear Mr. Higgs," said Philip, with the greatest good-nature. "Have a cigar?"

"I wonder what that man finds in life?" Philip asked the taffrail ten minutes later.

Two days later, however, it became apparent to Philip that even the meanest of God's creatures have ambitions. He was strolling along the deck, when he suddenly came upon Miss Harding and Theodore Higgs. Miss Sharpe was in her berth, seasick, and thus the handsome American was unprotected from the rather personal enthusiasm of the Kurve-Kut Korset man.

Higgs, as Philip came upon the scene, was talking volubly, and drawing demonstrative parallels with his hands. Miss Harding was standing up, her face burning with blushes and her lips moving between tremulous embarrassment and angry but vain articulation.

Philip took in the situation at a glance. Walking rapidly to her side, he almost shouldered Mr. Higgs out of the way and raised his yachting-cap.

"Pardon me," he said to the lady. "Miss Harding, I believe. You must really come forward and see the flying-fish—shoals of them. I hope you don't mind my introducing myself. Ship-board etiquette, you know."

He laughed. Miss Harding looked into his eyes with a swift glance of gratitude. She understood. Next moment her arm was in his and they were walking toward the bow of the steamer.

Later in the day, Higgs came upon Philip by the rail. The treasure-hunter had been indulging in a day-dream in which was a strain of the agony of Tantalus.

"Say, old fellow," said Mr. Higgs familiarly, "that was a mean trick you played me!"

It was an inopportune moment for the agent of the Kurve-Kut Korset. A hitherto undreamed-of ferocity suddenly leaped into Philip's heart. He turned around, caught Higgs's chin between his right forefinger and thumb, gave it a sharp jerk, and said:

"Sir! You are an unspeakable cad!"

CHAPTER IV.

A Disaster at Sea.

MISS VERINA HARDING was quite unconscious that her good looks had stirred enmity in the hearts of two of Nature's noblemen, although, in her mind, there was no comparison between the unspeakable Higgs and the tall, refined, gentlemanly person with the amused eyes and the quiet smile. One was a cur, the other a mastiff.

Sand interested Miss Harding. That he was a gentleman in the strict sense of the word she had no doubt. There was a formal informality about his doings that stamped him as a man of habitual refinement, and there is nothing of stronger appeal to a woman's gentle nature than this.

He was handsome, too, in a quiet, unobtrusive way. He was hardly the man a maiden would sigh over o' nights. Philip Sand grew upon the senses rather than burst upon them. His quiet humor, too, left a feeling of light-heartedness which somehow made one's outlook on life pleasant.

He was a delightful person to travel with, as Miss Verina soon discovered. He had a gift of word-painting. In one suggestive sentence he could depict a

fellow passenger's whole life — history, peculiarities, and personality. That is, he drew a vague line across the canvas of the mind, and the mind unconsciously finished the picture.

Then, too, he had such a delightful way of being sentimental. He did not enthuse over anything, verbally. He would grunt something about the stars and succeed in producing the wide silences upon the senses. Or, after a long silence, broken abruptly by one resonant note of the ship's bell, he would lift his head and say, half jocularly, half reverently:

"And the lights are burning bright, sir."

Miss Harding herself was quite a mystery to Philip, but no less was he a mystery to her. Her intuition divined an unusual something about this man. Sometimes he seemed a thing apart from worldly things. Especially did she feel this when she was not with him, but watching him as he sat alone.

But what puzzled her most was the smiling attention which he sometimes bestowed upon a ragged piece of yellow paper which he would reverently draw from an inside pocket.

Naturally her gratitude was his, for she instinctively felt that his masculine power had been exerted on her behalf. Mr. Higgs did not attempt to speak to her again, although she sometimes caught the Korset man's wide, animal eyes fixed upon her in a disconcerting manner. And she also noticed, and understood, that Mr. Higgs had developed a fearful respect for the quiet Mr. Sand.

Philip himself was no less puzzled over Miss Harding. That that was her name he had learned from the passenger-list. Whether Miss Sharpe was the young woman's aunt or servant, he could not decide. Miss Harding treated the elderly spinster with good-natured humor, as she might treat a privileged servant or a peculiarly constituted relative, while Miss Sharpe played the harmless tyrant with her charge.

Sand spent a good many hours of the second and third days in Miss Harding's company. So long as the conversation was of a general nature, she was a delightful shipmate; but as soon as the talk drifted into the deep waters, as on an ocean voyage it somehow will between comparative strangers, she adroitly swam back into the shallows, if Miss Sharpe did not drag her back with that absurdly reproachful warning:

"*Verina!*"

Several times Philip, incomprehensibly anxious to know something of the young woman's life and antecedents ashore, revealed some personal details of himself. Having said that he was bound for Colon, he succeeded in ascertaining that Miss Harding and her elderly companion were paying a touring visit to Jamaica.

"I expect to join the yacht Chameleon at Colon," Philip continued baitfully, "and do some cruising."

Miss Harding turned her head slowly and stared at him.

"The yacht Chameleon!" she said in slow amazement.

Philip felt embarrassed. He had not meant to convey that he was rich enough to charter one of the finest yachts afloat. But Miss Harding added quietly:

"Oh, you mean Mr. Merton Scragg's yacht?"

"Whose?" exclaimed Philip.

"*Verina!*" rasped Miss Sharpe.

Philip thought for a moment. He had learned the name of the Chameleon's owner, and had forgotten it. Anyhow, it was not Scragg, although he thought he ought to remember the name of the person from whose agents he had chartered the yacht. It had a familiar ring, now that he had forgotten it!

"I think you must have in mind another yacht of the same name," said he. "The owner's name was not Scragg. Also, I would be surprised to hear that Merton Scragg owned a yacht. I have had personal dealings with Merton Scragg," he added, almost bitterly.

Miss Harding's face was a study for a moment. Presently she concluded the incident with the remark:

"Probably you are right, although Mr. Scragg, if he is the same person, does own a yacht. I have been his guest aboard her."

Philip said no more, although he was chuckling in his mind over the incongruous possibility of skinflint Scragg in a white yachting-cap, with a nautical swagger and an up-aloft voice. It was

an absurd idea, of course; but the incident served to deepen the mystery of Miss Harding and his interest in her.

His interest in her was not without a growing sense of pain. If he had been a well man, with years of life before him, Philip Sand might have questioned his interest in Miss Harding. She was the finest woman he had ever met, both mentally and physically.

Mr. Higgs had not been wrong in his estimate of her bodily charms; but allied with them was something which Mr. Higgs was incapable of appreciating. She was a young woman of character.

She was intellectual without being masculine. On her broad brow was pride, and in her eyes was modesty and tender kindliness; while her mouth expressed strength, with feminine softness. Philip liked her because she was not helpless, but no less of a helpless woman on that account.

On the morning of the fourth day of the Revuelan's voyage south, Philip Sand arose from his berth after a restless night. He determined, as he put on his clothes, that he would have nothing to do with Miss Harding to-day. His interest in her was becoming too marked, at least to himself. It caused him the first bitterness of his mortgaged life to discover that there was one happiness in which he might not dabble during the remaining days of his year, and that was the supreme happiness—Love

He was not in love with Miss Harding —yet. And to-day he was going to make sure that there was no danger of such a catastrophe. To-day the Revuelan would enter the Bahamas, and to-day Philip Sand would attend strictly to the business that had brought him a sailing.

Immediately after breakfast he obtained the captain's permission—in the form of an angled invitation—to come up on the bridge. In an hour the captain — Captain Rodgers — expected to raise San Salvador, or Watling's Island, as Columbus's landing-place is written on the maps.

What Philip really wanted to have a look at was the captain's chart, in order to inform himself as to the approximate position and distance of the Caicos Islands. Hitherto he had been unable to find the islands under that name. When Watling's Island was raised, the captain, a queer bit of humanity, began an unsolicited discourse.

"I never see that island, Mr. Sand," said he, waving his hand over the bows, "but I think of the wonders of the Lord."

"'They that go down to the sea in ships and do business in great waters,'" quoted Philip gravely—"'these see the works of the Lord.'"

"Ah!" said Captain Rodgers, approvingly. "You read the Scriptures, I see." Encouraged by such sympathetic piety, he rambled on about how, in these very waters, in sight of that very island, where at night a lighthouse beams in place of the Indian torch, the thankful *Salve Regina* of the Spaniards was raised to the listening skies. America was discovered, although, as Captain Rodgers added slyly, if there hadn't been a light that dark night, America might have discovered Columbus.

Philip smiled obligingly. He was picturing the captain on each and every voyage perpetrating the same joke to some honored passenger on the bridge.

"The Bahamas are a queer group," said he, like a schoolmaster who repeats the same lesson to succeeding classes. "At one time there was no Caribbean Sea, no Gulf of Mexico. Wild Indians roved over the face of the waters. Then came a great earthquake—a great sinking—and a third of the entire Western Hemisphere sank beneath the waves.

"To-day," concluded the nautical schoolmaster, "all that is left of that large portion of rich continent are the mountain tops that are now low-lying islands — a range of mountain-peaks stretching from the tip of Florida to the shoulder of South America, and between them a great pocket of water which escapes in what we call the Gulf Stream.

"That Gulf Stream, formed by the Lord's mighty hand, influences all Europe, makes England habitable, makes—Quartermaster!" he broke off with practical sharpness, "sing out when Watling Lighthouse is abeam."

"I would like to see that on the map," said Philip innocently. "Of course, I've often seen it before, but now it means—differently."

The captain fell into the trap. He led the way to the chart-room, eager to show his appreciative pupil "the works of the Lord." He unrolled a chart of the Bahamas, showing, also, the coast of Cuba, Santo Domingo, and Porto Rico.

"This is where we are now," said Rodgers, pointing to the eastern end of Watling's Island.

Philip Sand studied the chart. He felt like the villain in a treasure story. Right in the ship's course were a number of islands with clear water threading among them. There would be Rum Cay to the right, and Long Island; then Fortune Island to the left, and Acklin Island, then a speck called Castle Island, with clear water to Little and Great Inagua Islands on the port side—and then Cuba.

This was the course as Captain Rodgers traced it, discoursing all the while.

"This afternoon we will pass Fortune Island," said he, "and in the night we will pass Castle Island; or, as it is called, Bird Rock Light. I hope the weather is fine, for when it blows, this passage is one of the worst in the world. I'm afraid we will have a noisy passage through. It is too bright to day. Glittering sunshine like this is a bad sign hereabout."

But Philip was not listening. His eyes were fixed on a spattering of pin-head islands to the southeast of Castle Island. His heart was beating like a riveter's hammer, for the name printed over them was *Caicos Islands*.

"How is this?" he said, pointing to the little cloud of pin-heads. "I never heard of these islands before—at least, I don't remember ever seeing that name on a map of the West Indies."

"Ah!" said Captain Rodgers, preparing for another discourse. "This chart, like all charts, is accurate. These are the Caicos Islands, although on ordinary maps and in the speech they are called the Turks Islands, just as San Salvadore is called Watling's Island. They are continually changing names—these islands."

Philip started. He looked up at the captain and expected to see him with his tongue out, but all he said was, after the manner of the English engineer:

"That is *most* interesting!"

"Watling Light abeam, sir!" hailed the quartermaster.

The captain hurriedly excused himself, and Philip was left alone with a forefinger placed upon the Caicos Islands.

Late in the afternoon Fortune Island was raised on the port bow. Philip had found enough in his own thoughts and in the glimpses of passing islands to occupy his attention to the partial exclusion of Miss Harding. His mind was filled with the romance of treasure.

The inshore opal of the waters around Fortune Island was rapidly changing to varying shades of angry green, blue-black, and white-gray. Presently a mist came over the sea. In less than half an hour Fortune Island had vanished and the Revuelan was driving over a sea that was as flat as a billiard-board and churned white as milk.

At first it was believed to be one of the passing squalls which are common enough among the islands and which sometimes attain a dangerous velocity, but as a second squall, more ferocious than the first, was followed by a third, and a fourth which finally developed into a growing gale, the outlook for the night in the island passage became grave.

"There is nothing to worry about, ladies," said Captain Rodgers to Miss Sharp and Miss Harding, taking his seat at the supper-table as usual. "We will have Castle Island Light before midnight and then the weather will abate and you will be able to sleep comfortably. It is the mighty sea confined in this little space that makes such a protest."

In the middle of the supper Captain Rodgers, after a mighty list of the steamer to port, excused himself and went on deck. That was the last ever seen of Captain Rodgers!

When Philip Sand returned to the deck he caught the terrible whisper as it went from lip to lip, from bridge to stokehole. The captain was missing. When a man is missing aboard ship during heavy weather no question is asked.

Philip Sand felt his spine creep as he heard the rumor. The self-satisfied man of the bridge, the paternal simpleton of the supper-table, was gone—into the deep, dark sea which was roaring around the steamer like a pack of wolves, hungry for more.

To make sure that it was the truth, Philip did not hesitate about ascending to the bridge. A man clad in oilskins turned abruptly upon him.

"Well?" snarled a strange voice. "What d'y' want here?"

"Pardon me," said Philip, "but there is a rumor about the ship that the captain has fallen overboard. If it is not true, you had better quiet the anxiety—"

"What business is it of yours!" said the man in oilskins. "I'm captain of this ship, and you get down the companion as fast as you came up!"

The man advanced upon Philip menacingly. The treasure-hunter fell back a step, astonished at the reception. For a moment his blood boiled. Then it chilled as he caught the odor of the man's person. The first mate—for it was he—had been drinking. Philip walked down the ladder.

He went below to the dining-saloon where he came upon a group of scared passengers. Miss Harding saw Philip and stopped him with a question.

"Is it true, Mr. Sand? They say the captain has fallen overboard."

"It may be true, or it may not," said Philip slowly, and he forced a smile, "but one thing I do know. I have just been on the bridge, talking with the captain, and he is in no very civil frame of m .. !."

"There!" wheezed the Jamaica planter. "Gossip! All gossip! I never was on a ship that didn't gossip."

Philip said no more. He let the misunderstanding act as he had intended it should, and retired to his cabin. He read a novel for an hour, while the wind screamed around the ship and the steel plates hummed with the vibration of the driving sea. Just as he was retiring, a steward entered to ask if anything was wanted. Philip inquired as to the weather.

"Don't like it, sir," said the man. He cautiously closed the door and whispered mysteriously: "It's true, sir; captain's overboard, and Chief Officer Howell's drunk as a fiddler. We should have Castle Light by now, and there's not a sign of it. Don't like it, sir."

"Neither do I," said Philip.

Nevertheless, he had had enough of participation in the ship's affairs. For himself, nothing mattered much. His life was mortgaged anyway, and there were worse things than drowning. Miss Harding came to his thoughts; but he put out the light, and presently was lulled to sleep by the ocean and the wind.

It seemed a moment later that he was awakened by a terrific shock. The cabin was in darkness. There was a pattering of feet on deck, a mingled chorus of shouts, curses, and screams.

A moment later there was a hammering on the door of his cabin, and a woman's voice crying:

"Mr. Sand! Mr. Sand!"

"Thank you, Miss Harding," said Philip. "I am coming. Go on deck. I shall join you and Miss Sharpe there. Don't be alarmed."

Then Philip Sand switched on the light. The cabin seemed all askew. Apparently the Revuelan had climbed up on a reef, or on an island-shore. Anyhow, she seemed hard and fast, so Philip proceeded to dress with little less than his customary coolness. To a man whose life is mortgaged, nothing matters a great deal as long as it is interesting, and to a person of Philip's turn of mind, being shipwrecked on a desert island was quite interesting.

He had just about finished dressing when the ship gave a queer, jerky shiver. Next moment it seemed as if the floor was sliding from under his feet. Instantly he realized what was happening. The steamer was sliding back.

He darted through the cabin-door, across the saloon, and bounded up the companion. As he rushed deckward he was conscious of a sullen sinking of the vessel beneath his feet. The uproar of the sea and of human voices suddenly became terrific. As he emerged on deck, he was greeted by the sight of a wall of water steadily climbing over the rail.

The Revuelan was going to the bottom. He glanced swiftly along the deck. Dozens of men were crowding around the boats. He discerned the figure of only one woman. He dashed toward her in the darkness, but a great wave of water slid between him and the figure, and next moment he was battling with the ponderous, black sea.

(To be continued.)

Fighting the Ticket-Scalpers.

BY H. A. KOACH,
Assistant Chairman, Railway Ticket Protective Bureau.

WE begin here one of the most important and interesting series that ever appeared in THE RAILROAD MAN'S MAGAZINE. It doesn't seem possible that there are people on this continent so gullible as those mentioned by Mr Koach people who would sell what they had left of a railway ticket for twenty-five cents because the scalper said his price was three dollars a yard! Think of it!

Ticket-scalping grew to be an organized, protected industry before the railroad lines, which had lost thousands of dollars, took a hand in the matter. The Railway Ticket Protective Bureau is an organization similar to the American Bankers' Association and the Jewelers' Alliance, with Pinkerton connections.

The Many Ingenious Schemes Used to Lure the Cash of the Unsuspecting Traveler by a Band of Men Who Cleverly Manage to Evade the Law.

FIRST ARTICLE.

ENORMOUS quantities of forged and altered railroad tickets were discovered at the close of the World's Fair, in 1893. Prior to that time there had been occasional instances where altered tickets were found by railway auditors when checking-up, but these alterations were confined wholly to what is known as "plugging"; that is, filling up the canceled date of an expired ticket with paper pulp of the same color as that of the ticket, and cutting a later date in month or year on the ticket with an "L" punch, thereby reviving its life.

This, however, was so poorly done that the plugging was frequently discovered by a conductor when the ticket was offered for passage. Frequently Mr. Scalper got a sound thrashing from the irate passenger at the office where the ticket was purchased.

At that time a scalper, or, as he preferred to be called, a railroad-ticket broker, who dealt in altered tickets, soon became an object of suspicion to his brother ticket-scalpers, who not only would refuse to do business with him, but frequently informed the railroad companies of his fraudulent practises.

This course was pursued by them, not from any fine sense of honor, but because they were, at the time, in receipt of many favors from the railroads.

Easy To Be a Scalper.

The wholesale forgery of printing tickets outright and, by means of acids, changing the destination on regular tickets purchased from railroad offices had not yet reached the point where it materially threatened the passenger revenues of the railroad companies which it attained in later years.

During the summer of 1893 the Eastern lines made unusually low rates from New York, Boston, and other Eastern points to Chicago. What is known as a "coach ticket" was then first introduced. This was practically a second-class ticket. Sleeping-car accommodations were not allowed in connection with it. It was limited to ten days for a round trip, was non signature, good for use of any one, and accordingly transferable, having the date of its expiration printed on its face.

These tickets were sold by Eastern lines one day each week only, and to avoid confusion each weekly issue was of a different color. They were printed on ordinary paper and were not engraved. Plain type, such as is found at any printing-office, was used, excepting, of course, the signature of the general passenger agent, which was an engraved facsimile.

The ease with which these tickets could be bought and sold, the slight knowledge required as to rates and train-schedules, induced many to embark in the scalping business.

But small capital was required to open an office. Some gaily colored cardboard signs, six feet of space in any store, a large stock of impudent self-assertion, and a hypocritical pose as a friend of the people by procuring cheaper rates than they could secure for themselves, together with the assumption that almost anything that had the semblance of a railway-ticket would pass the scrutiny of those whose duty it was to pass upon it—these constituted the scalper's stock-in-trade.

Many of these new recruits obtained their primary knowledge of the scalping business, and its possibilities for fraud, while being employed as train "skinners" by ticket-brokers. They had to procure portions of tickets by boarding the incoming excursion-trains, or remain about the railway-stations and induce passengers to sell their unused transportation.

Large numbers of the return portions

GOT A SOUND THRASHING AT THE OFFICE WHERE THE TICKET WAS PURCHASED.

of these tickets found their way into scalpers' hands. As the rate from New York for the round trip was but ten dollars, many travelers availed themselves of it. The Chicago scalpers would pay from five to eight dollars for the return portion of such tickets, and in this way the passenger from New York had an exceedingly cheap one way trip.

Auditing Departments Helpless.

Notwithstanding that hundreds of return tickets were daily secured by scalpers, the supply was not equal to the demand. It was then that the parasites, realizing the ease with which the tickets could be counterfeited, had large quantities printed which were sold without difficulty or detection.

Owing to the heavy travel, the auditing departments of the railroads were swamped with work and could not check up promptly, so the frauds were not discovered until the exposition was over. When this wholesale forgery was detected, the itinerant scalpers, some forty of whom had opened temporary offices in Chicago, closed their shops and moved to pastures new, so no arrests or prosecutions could be made, the railroads simply swallowing their losses with the lessons learned.

To show with what ease the unsuspecting and unsophisticated stranger visiting Chicago could be imposed on, the following authentic episodes are cited:

The Iron-Bound Box Trick.

A traveler, having returned portion of a ticket for sale, would call on a certain scalper, who would simply look the ticket over and, without saying a word or asking what price was desired for it, would drop it through a small opening into a large iron-bound box with a massive padlock, which stood at one end of the counter.

He would then open his cash-drawer and give the party offering the ticket twenty-five cents. Of course, an immediate protest would be made by the stranger, who probably had expected to get at least one-half of the original cost of the ticket. The scalper would appear very much surprised and explain that the rule of the Railroad-Ticket Brokers' Association was to pay a fixed rate of one dollar a yard for tickets, and as this ticket was only a quarter of a yard long, he had offered him the regular price—a quarter of a dollar.

Another lengthy argument would ensue, when the scalper would apologize for placing the ticket in the box, stating that he was simply a clerk in the establishment and had no key, but if the stranger desired to await the return of the proprietor the ticket would be given back to him.

Of course, the proprietor would never return, and the stranger, tired out with long waiting, would depart with his piece of silver.

Worked with Bunco Men.

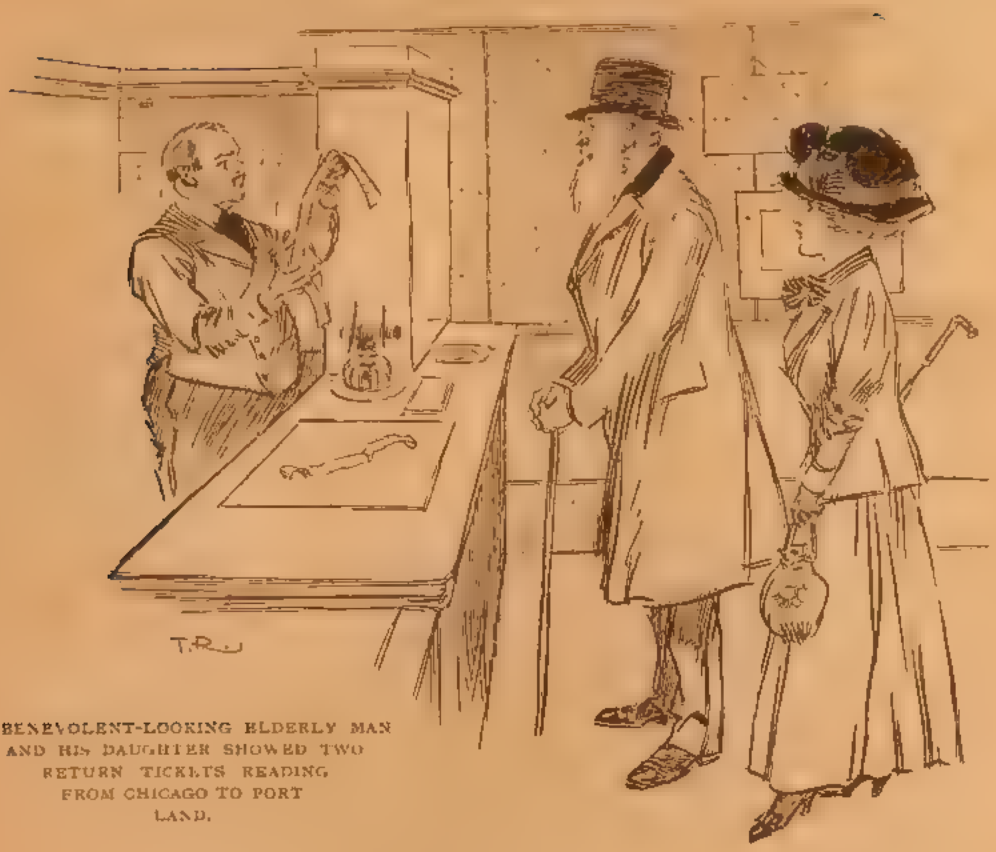
Then, there was the nifty scalper in collusion with "bunco steerers," whom they notified by a system of signals, provided the victim had sufficient money on his person to make it worth their while to rob him.

For instance: A party desiring to go to some point in California would shop for rates among the different scalpers, who would closely question him as to how many there were in his party, when they intended to go, and if he expected to purchase his tickets that day.

If it was found that he had the means to purchase four or five tickets to California, he would be asked to return in an hour, when, the scalper promised, the tickets would be ready for him. In the meantime the bunco steerer would be communicated with and given the necessary information as to point of destination desired; and when the stranger returned, he would be told that the scalper had been unable to secure the required tickets.

The Old, Old Story.

After leaving the scalper's shop, he would be accosted by a well-dressed man — the accomplice of the scalper — who would make inquiries as to where he could dispose of two or three tickets to, say, Stockton, California, which, of course, would be the exact point where the stranger wished to go.



A BENEVOLENT-LOOKING ELDERLY MAN AND HIS DAUGHTER SHOWED TWO RETURN TICKETS READING FROM CHICAGO TO PORT LAND.

The stranger would be induced to accompany the supposed owner of the tickets to his hotel to complete the transaction, and, *en route*, his new-found acquaintance would invite him into a saloon, where, with the aid of confederates, the stranger would be inveigled into some game whereby he would be promptly and scientifically fleeced, the scalper getting his commission on the proceeds.

Again: A ticket would be called for to some town in Montana. The scalper would possibly have one reading to some Iowa point. He would then cut a railroad map so as to eliminate a number of the States, and paste it together again in such a manner as to bring the Montana point within a quarter of an inch of the town in Iowa indicated by the tickets.

Then he would convince the unsophisticated stranger that, by purchasing this particular ticket and paying a small cash fare of a dollar or so to the conductor, he would reach his destination for a very low rate. The guileless passenger, when he arrived at the city designated in his ticket, would find himself nowhere near his destination, and obliged to pay a considerable sum to reach it.

Put Aboard the Elevator.

It is said that many country visitors, after paying the prices demanded for railroad-tickets, would be taken to the elevated trains, put aboard by one of the innumerable runners employed by the scalpers, and told that their tickets had been given to the conductor and that they would have no further trouble regarding them.

On arriving at the terminus of the elevated line, they would find that they were still in Chicago. When complaint was made to the police department, they were unable to identify the scalper with whom they had transacted their business. The streets were honeycombed with scalpers' offices, all presenting a similar appearance.

To further confuse their patrons, when a worthless ticket was sold, a scalper would fully explain that he was thoroughly responsible, a member of the scalpers' association in good standing, and that he guaranteed all his transactions. He would then hand the purchaser his business-card, saying that if there should Mexican, Canadian, and even Confederate money in exchange for their tickets.

They would ask their victim if he intended going to any other point after visiting the exposition. If so, they would make a trade with him, giving him an order on a scalper for a ticket to a point where he wished to go, taking the return

HE WOULD DROP IT THROUGH A SMALL OPENING INTO A LARGE IRON-BOUND BOX WITH A MASSIVE PADLOCK.

be any question as to the acceptance of the transportation on the part of the railroad officials, to return at once and the money would be refunded.

This generally inspired confidence in the victim. The ticket, of course, was refused. On returning to the address given on the alleged business-card of the scalper, he would find that it did not exist, or that it was the address of some other scalper, who, of course, denied all knowledge of the transaction.

All Kinds of Money Given.

The men employed by the scalpers to purchase tickets on trains worked innumerable schemes to swindle passengers, even going so far as to give them portion of his ticket in exchange for this order. This exchange order, when presented to the scalper on whom it was drawn, would not be recognized, or, more frequently, no such concern existed as that on which the order was given.

The Busy "Mr. T. Pump."

The issuance of "rebates" was another method employed in swindling the unsuspecting public. A scalper's "rebate" was an order from one scalper to another for the payment of certain money on delivery of certain portions of unused railroad transportation reading beyond the destination to which it had been used.

Innumerable would be the "rebates" made out, during the World's Fair, to "Mr. T. Pump," located in different towns throughout the country. To a man wanting a ticket to St. Paul, a scalper would sell one reading a short distance beyond that point, charging for the entire distance, but declaring that on presentation of the unused portion of the ticket to the scalper on whom the "rebate" order was drawn, he would be refunded a certain sum.

He would then give the purchaser a "rebate" order on "Mr. T. Pump," located on "Water Street," St. Paul. The victim, on his arrival in St. Paul, would find no such scalper, and would soon realize that he had been fleeced and that he was in possession of the unused portion of a ticket, worth perhaps seventy-five cents or a dollar, which was of no service to him, and for which he had paid the scalper four or five dollars.

Selling an Office.

Another source of revenue was the selling of half-interests in scalper's offices. By advertising in the daily papers, a scalper would sell a half-interest in his business to some one seeking an investment which was profitable and did not entail any particularly hard work.

Immediately after the payment of the money, the scalper would leave his new partner in charge of the business. Then he would notify a number of his friends in the same business, who would rush in and interview the new partner, selling him as many altered, manipulated, and expired tickets as they could induce him to buy, making him particularly low and attractive prices.

He would be immensely elated over his business acumen until the return of his partner, who, with a great show of anger, would demonstrate to him that he had been wasting the money of the concern by buying worthless tickets, and that he was totally unfit for the scalping business. This would usually result in the scalper repurchasing his interest for a small sum, of course taking into consideration the amount expended for worthless tickets.

If this could not be accomplished, the victim would be induced to buy the entire interest, and the scalper would promptly open another office and pursue the same tactics on some other innocent investor.

That scalpers not only preyed upon the public, but on each other, is shown by the following:

Foxy Grandpa!

A benevolent-looking elderly man and his daughter entered a scalper's office and showed two return tickets reading from Chicago to Portland, Oregon. The old man said that he found it impossible to return within the limit of the ticket's time, and wished to sell them. His story was so plausible that he succeeded in selling the tickets. It was found later that he went the rounds of the scalpers' offices, reciting the same tale and selling two tickets at each place visited.

Shortly afterward these tickets were shown to be forgeries, and the fact that the deal had been engineered by two itinerant scalpers was revealed. This was apparently such an easy method of obtaining money that they endeavored to sell more of these forged tickets, even after suspicion had been aroused.

The same benevolent old chap entered the office of one of the scalpers who knew that the tickets were forgeries, and who was on the alert for them. He treated the old man most courteously until he was able to lock the door, when he told him in plain terms it was up to him to disgorge what railroad-tickets he had in his possession, or he would cause his arrest.

Wheels Within Wheels.

The man finally admitted his guilt and handed over some fifty or sixty of these forged tickets. The scalper, knowing it would be impossible to dispose of the tickets, as the line over which they read had been notified of the forgery, arranged the following deal:

Hastily rushing to a pawnbroker, he said that a well-known railroad official had selected him to act as agent for their road in disposing of a large number of tickets which he could get at a very low rate, but the transaction must take place secretly.

Unfortunately he told the pawnbroker that he was unable to furnish the cash capital required by the railroad official, but if the pawnbroker would furnish the money he would leave the tickets with him as collateral, paying him for them as they were sold, and, in addition, allow him a handsome commission.

The pawnbroker promptly advanced one thousand dollars and took the tickets as security. The tickets were never redeemed.

A passenger had bought a ticket reading to New York. He was assured that it was a first-class ticket, but on presenting it to secure sleeping-car reservations he ran against a snag. The Pullman agent called his attention to a clause printed on the ticket, which stated that it would not be accepted for passage in sleeping-cars.

Cut It in Two.

The passenger angrily returned to the scalper's office, showing him the clause in the ticket, and demanding the return of his money. The scalper said he could easily remedy this. Taking the ticket to a rear room, he eliminated this clause by cutting it out bodily and pasting the ticket together. He returned it to the passenger, asking him to again apply to the ticket-office for sleeping-car accommodations. This time the ticket evidently passed muster.

At the close of the exposition the scalpers became so bold that they did not even take the trouble to furnish tickets to their victims. They would guarantee to deliver certain tickets at a given date, giving themselves a week or ten days' time, demanding and securing from fifty to seventy-five per cent of the price asked for the ticket.

Those in the Game.

Hundreds of deposits were taken, but the night before the delivery was to be made the miscreants disappeared, taking with them the money of their gudgeons.

It was from this class that the skilled ticket manipulator and forger was evolved; also the experts in acids; the colorists, who, by the aid of dyes, are able to give to a ticket its original color after it has been removed by its acid bath; the maker of forged validation stamps; the printer of forged tickets and passes on railways which existed only in his imagination; the corrupter of railway employees, and the ticket "fixer," who claims that he is willing to permit any railroad official to take a new, unused ticket from the ticket case, place on it any writing, any stamps or date or cut out any limit with a ticket punch; or, in fact, make out the ticket in any way he wishes, and that he will restore it in one hour's time to its original condition.

Such men never frequented scalpers' offices, but maintained rooms in close proximity where, with their complete paraphernalia, they worked skilfully and secretly for the different scalpers, altering and forging tickets.

The type of ticket-scalpers of whom I have written became a distinct class by themselves. They maintained offices in different cities throughout the country, bound together by the strongest ties of self-protection, assessing themselves to maintain a defense-fund for use in event of arrest and prosecution, gradually absorbing the entire scalping business.

They even had their own language, never speaking of a railroad ticket in its proper terms. All tickets were "duckets" or "broads"; a passenger was a "rummey"; a small contrivance used by them for redating a ticket was named a "dinkey," and the redated ticket was spoken of as "redinked," while a ticket requiring alteration had to be "hit." A forged stamp was termed a "phoney."

They finally became such a menace to the passenger revenues of the railroad lines that the Railway Ticket Protective Bureau, an organization comprising all of the railway lines in the United States, Canada, and Mexico was formed, for the purpose of bringing these malefactors to justice.

This is the first of a series of three articles. In the second, Mr. Koach will describe the method of forging tickets, the arrangement of scalpers' offices, fake scalpers, the corruption of railway employes by scalpers, the forging of validating stamps on railway tickets, the making of one ticket out of two, and the raiding of some noted scalpers' offices.

THE FRASER-FLAXMAN FIGHT.

BY FRANK CONDON.

How You Can Occasionally Win on a Horse That Doesn't Finish Within a Mile of the Post.

ONE thing on the face of the earth that defies logic and sneers at reason is the firm belief of a street-car conductor that he is as good as a railroad fireman.

There was the case of Peter Flaxman. The other man was David Fraser, and the girl was Nora Feely, by which admission is established immediately the three sides of the human triangle; and while all such geometric figures promise and produce action of one sort or another, this particular triangle began to bat over .300 from the very first.

In Toledo, Ohio, a thriving Western metropolis, where they have all-night street-cars every fifteen minutes and an owl lunch-wagon exactly like every other owl lunch-wagon on the North American continent, the "union deepo" is an institution, coddled by the residents in kind words and profaned by the stranger.

Toledoans speak of it cheerfully, and you expect to find it on the main thoroughfare, surrounded by girdles of electric lights, swathed in banners, and one step from your hotel. On the contrary—yes, on the emphatic contrary—the "union deepo" is chastely snuggled in the bosom of a depression that had once done duty as a self-respecting swamp, miles away from the teeming, roaring city, leagues beyond where you expect to find it, and as far [illegible] a pigs-meadow stagger.

Miss Feely was twenty years old the night of the car-barn fire. That was the biggest event in Toledo's history, and it was very exciting. You will have no trouble in placing the date, so you can see that Miss Feely is still quite a young woman, and she is every bit as entrancing this minute as she was that night.

NORA FEELY.

She watched the flames from the top of Peter Flaxman's car, which had been converted into a "Seeing Toledo Burn" vehicle, in special honor of the occasion.

During that terrible visitation of the fire fiend, young Mr. Fraser stoked anthracite into a pony engine in the yards—a snorting, hustling little four-wheel Brooks, with the disposition of a Mis-

souri mule and an abrupt habit of throwing a man off his feet every time the brakes were applied. Mr. Fraser had reason to believe Miss Feely was watching [illegible]. Furthermore, he was convinced that Mr. Flaxman was somewhere near her, and the double thought peeved him in a most acid way.

"I don't wish him any bad luck," communed Mr. Fraser, passing in the coal, "but I hope he's under the next wall that falls. She makes me tired, anyhow. Chasin' around with a bell-ringin', nickel-chasing shrimp that can't keep his ears clean! She ought to have better sense

Whereupon Pony No. 111 bucked violently into a Pullman, and tried to push the water-gage down Mr. Fraser's throat.

One day, six months before the fire, Davy Fraser finished washing his face in the roundhouse, preparatory to buying some chewing-gum in the waiting-room. Davy hadn't chewed gum in fourteen years; but there was a new girl behind the counter, and she looked like a dream come true. Davy had seen her for the first time in the morning, and his long-lost love for gum abruptly returned.

At the gum counter, and partly hiding it, was a man in a blue uniform. When Davy strolled in through the clicking telegraph office, the man in the uniform was buying gum, and indulging in what appealed to Davy as some very loose and infantile conversation about the color of eyes, and how brown eyes always looked nicer than blue eyes.

Miss Feely had brown eyes—very brown eyes; the sort of brown eyes that make their owner's telephone number stand out in a man's memory like a lighthouse. Davy had always hated Peter Flaxman; but until he saw Peter talking to Miss Feely, that bright afternoon, he never realized how intense a loathing one man may have for another.

There he was, a blue Peter in good sooth. Blue uniform, blue cap, nickel buttons, badge, gloves and all, and talking to Miss Feely for all the world like a silly magpie, when no doubt she was interminably bored and irritated.

"Have you got any Blood Red gum, miss?" asked Davy politely. "Hallo."

He addressed the last word to Mr. Flaxman, coldly and frigidly.

"Hallo, Davy," answered Peter brightly. "I haven't seen you since that night you came near being arrested. How you ever got out of that scrape beats me."

Miss Feely looked politely interested.

"I haven't any Blood Red," she said in the pause that followed Peter's pleasant remark; "but we sell Tulip's Heart. It's very good gum. Would you like some Tulip's Heart?"

"That's the very name I was trying to think of. I always chew that kind. Gimme fifty cents' worth."

Davy peeled off the tinfoil and inserted a wedge in his mouth.

"Ain't you chewing tobacco no more?" asked Mr. Flaxman with interest.

"I never did chew tobacco," responded Davy tartly. "Your motorman's calling you."

It was even so. Peter smiled brightly at Miss Feely, who had seemingly been paying slight attention.

"So long, Miss Feely," he said. "I'll see you the next trip."

"Do you know Flaxman?" asked Davy, when the conductor had gone.

"Not very well. He comes in to see me when his car gets here. He's a nice man, I think. He's very fond of gum. Are you?"

"I love my gum," replied Davy. "What was he saying to you about brown eyes when I come up?"

"Oh, nothing. He was just talking like all you men talk. Aren't you the fireman out in the yards?"

"I fire the switch-engine," admitted Davy. "I get a job runnin' before long. Do you like street-car conductors?"

Miss Feely smiled one of those quick smiles that start and end in the same second.

"I don't know," she answered. "I like men if I like them, regardless of what they do for a living. Do you like girls who work in railroad-station waiting-rooms, selling gum to firemen who chew tobacco?"

She leaned her rounded elbows upon the glass case and looked Davy in the eye. He grinned.

"Sure I do. But now, listen. I ain't got a thing against street-car conductors. They're generally dead-beats or crooks of some sort or other, and they usually drink like a fish and never pay their debts, and they never have a decent home over their heads, and they're not refined, and they'd probably steal the pennies off a dead man's eyes. But, outside of that, they're all right. Taking them as a class, they're all right, outside of the trifling exceptions I mentioned. cover a capable switch-engine shinnying around the yards, and during most of the day you'll see me chucking coal into her.

"Every now and then I'm coming in to buy some of this here Tulip gum, and eventually I believe we'll get to know each other; and, in the course of time, I'm going to ask you definitely to come to a dance with me, because if there ever was a swell little dancer in Toledo, the same is yours, etc., etc."

"I'M GOING TO ASK YOU TO MARRY ME TO-NIGHT."

How long since you knew this Flaxman fellow?"

"I began this job at seven-thirty this morning," laughed Miss Feely. "I met Mr. Flaxman at seven thirty-two, and he's been in to see me at the end of every trip, so far. His car has to wait outside for ten minutes each time."

"Do you ever go to dances?" asked Davy, changing the subject easily.

"Very often. I love to dance."

"If you ever get to know me better, d'ye suppose I might have the honor?"

"We'll see, later on."

"Well, if you look out through that last window once in a while, you'll dis-

A customer interrupted the flow of conversation, and Davy walked forth into the summer-night's air smiling upon the rich and the poor alike.

Miss Feely was the sole support of a large and expensive wardrobe, and, incidentally, she won the bread for a timid little mother. There was nothing brilliant about her except her eyes, and nothing pretty except—well, her whole sweet self. In Toledo, a girl must work for a living or get married. No Toledo girl has ever tried out the first system to its fullest extent, and marriage is as common as conversation.

Miss Feely had no particular aspira-

tions, ideals, or ambitions, but she liked good-looking men who were properly introduced, and occasionally she became acquainted with other men in unconventional ways—just as she came to know Davy Fraser and Peter Flaxman.

Peter was a good-looking chap. So was Davy. Peter made a fair income, and so did Davy. Peter had a gift of gab and a sweet way of talking nonsense to a girl, and Davy lost points on this count. But the triangle started out easily, and made good time from the be-

It was Peter who first leaped the bounds of restraint and carried off the girl to an ice-cream social in Walbridge Park. It was Peter who drove himself into a book-store and bought a bundle of books, the contents of which were pure Greek to him. They had nice covers, and they made an acceptable gift. It was Peter who learned to buy flowers now and then, to mind the holidays with an appropriate greeting, to tip his hat frequently. And whatever he did, Davy came in behind with a mild sort of imitation.

Davy was no ladies' man, but he was a mighty good fireman. He could tell the steam-pressure without looking at the gage, but he couldn't make a pretty speech to save his soul. As a social light, he was unlit.

Now and then, after all three had become pals all except Davy and Peter—the fireman would invite the girl out for a moonlight ride on the lake. He might take her to a summer-theater show, or he might drop in at the little cottage up on Western Avenue and idle away a few hours without making any particular effort to be entertaining or amusing.

"I NEVER DID CHEW TOBACCO," RESPONDED DAVY TARTLY. "YOUR MOTORMAN'S CALLING YOU."

One night Davy sat in the big Morris chair, staring at Nora and wondering how it would feel to be able to ask her if she had put out the cat and locked the back door. He sat up suddenly under the weight of a stray thought and propounded:

"Say, Nora, do you like Peter Flaxman better than me?"

Nora turned her brown eyes on him in mild surprise.

"I've often wondered," she said gravely. "It's been bothering me lately more than ever. I've sat up with that particular thought more than one night. Peter is a fine chap. So are you. Neither one of you has made violent love to me; but I'm not blind, and I can see

"THEN EVERYBODY CLUTCHED WITH THEIR ARMS, WRISTS, KNEES, AND FINGERS AS THE PASSIONLESS STEEDS SHOT DOWN WITH A METALLIC ROAR.

that you like me. Peter asked me to marry him last night."

"As usual," grunted Davy. "He's in ahead of me again. Well, I may be a trailer, but I'm consistent. So I'm going to ask you to marry me to-night. I don't care what you told Pete; but if you said you would marry him, I'm going to look him up this bright summer's eve and knock his block off."

"I didn't say I would marry him. I told him he would have to wait."

"That sounds better. Now, what are you going to tell me?"

"Same answer, Davy. I can't decide. I wish I could, because somebody is going to get the worst of this, and I don't want to hurt either you or Pete. I presume one of you will be hurt."

"One of us will, unless I marry you, Nora. If you have any large sums of money around the house, go and get a bet down that one of us will be hurt, and his initials will be P. F. Say! Can you see me on the curb watching you and him trail into church—him in a waiter's dress suit and you all dressed up?"

"Nix. I'll be on the curb maybe, but I'll carry a dynamite bomb, and I'll touch it off right after some one gives Pete away, taking great care to have it remove him from earth. No. I've been reading the cards, and they say you're going to lose the Feely end of your name and adorn yourself with the pleasing name of Fraser."

Nora laughed, and so did her small mother. The mother always sat in on these little affairs, and Davy wasn't the least embarrassed.

"How much do you make now?" asked Nora. "I'm not mercenary; but it's nice to know the facts, in case of fire."

"Hundred and thirty, counting overtime, and I'll do better when I start running. We can get married to-morrow and have a honeymoon next year."

"Next year I'll answer that. But, remember this. I'm ready to marry either you or Peter. I can't settle it because I can't, and that's all there is to it. Things will have to go on in the same way until something happens."

Nothing happened to sway the situation from its perfect poise. Peter and Nora were fast friends, and Davy and Nora were fast friends. True, Peter escorted the girl to frequent social events, but Davy trailed along about the same as ever; so the general average was undisturbed.

Even a fireman can become jealous. Davy was jealous. Not only that; he was angry, and threatened Peter with bodily harm, whereat Peter laughed. And when the grand ball of the Fourth Ward Democratic Club was given at the Casino, Peter slipped one over on Davy for the thousandth time by getting in his invitation to Nora first.

"I'm awfully sorry, Davy," Nora said consolingly. "But Peter heard of the affair before you did, and he asked me to go with him, so I couldn't very well refuse."

"All right," replied Davy. "I hope you have a good time. But remember, I'm sore."

He cut his visit short because he couldn't keep up his end of the conversation, and Nora's mother remarked that David was getting stupid.

The day and night of the grand ball spread red ink upon the fair annals of Toledo. Everybody was going. The municipal offices were to be emptied, and every official, from the mayor down to the workhouse superintendent, had promised to attend. Even the red-headed mayor's secretary, who never attended anything, had given his word; and when the sun came up on that festal day, all the chivalry and beauty within the city walls began to pile into the wabbly street-cars. At noon the Casino grounds were filled, and by night the attendance was dancing around the twelve-thousand mark.

When twelve thousand Toledoans decide to leave town temporarily—and the Casino is out of town—what remains of the city is peculiarly lonely. After Davy Fraser had wiped the lubricating-oil from his ruddy countenance and polished himself back to decency, he emerged from the roundhouse, and thought solemn things.

Nora was riding the merry-go-round with Pete. Nora was eating gummed molasses and popcorn with Pete. Nora was sitting in retired corners, drinking lemonade with Pete. They were shooting the chutes, Pete and Nora; and without a shadow of doubt, Pete had his arm around Nora to prevent her from falling.

Davy had a perfectly fine time with his thoughts until they finally got the better of him; and, like the murderer returning to the scene of the crime, Davy boarded a South Street car and started for the Casino.

A street-car ride frequently clears a man's brain and opens up channels of thought that may otherwise remain clogged. And a ride on a South Street car in Toledo is the longest thing this side of eternity. By the time the motorman had turned into Stickney Avenue, Davy Fraser had ceased to sit on his shoulder-blades like a condemned prisoner. He had taken his hands out of his trousers-pockets, and his face was beginning to flush with a red tint, which, in Davy's case, meant either the presence of an idea or the approach of the measles.

It was an idea.

Why, communicated Davy telepathically to the advertising signs in the corner of the car, should this ghastly farce be continued longer? Why should he, Davy, who was continually and monotonously bested by a transfer-punching rival, submit to further mortification? Hadn't the thing gone on for months? Hadn't he lost on every occasion? Was he any more likely to win in the future? He was not!

Then, why not end everything immediately? Have it settled and over with, and if things turned out wrong, let 'em turn. If Davy had known what a die was, he would have cast it as the car turned into Lower Summit Avenue.

You approach the Casino grounds through a series of curves, finally stopping at a raised platform, beyond which is a wire netting surrounding a lot of unhappy animals. Davy slid off the car, and paid ten cents to a man at the gate, who seemed to be suffering from an extreme case of ennui.

In ten minutes he had joined the merry throng; in eleven minutes he had begun to search for a tall, handsome girl and a street-car conductor.

They were leaning over the railing, watching the hired motor-boats. Pete was explaining, and Nora was listening. Davy anchored in the offing, sheltered by an ice-cream booth. He meditated upon various things; but uppermost in his mind was the notion to suddenly leap upon the inoffensive Pete and, if possible, kill him with despatch, and throw the body into the water.

Then seize the girl and leave abruptly without being discovered. In the cold light of even Davy's reason, the plan had weak points. Some one would be sure to see him in the thirteen thousand thereabouts, so he paused and bought another ice-cream soda

Nora and Pete sauntered down the long board walk, followed by the doughty Dave. They halted at various booths, and Davy stopped also, to avoid detection. At one point he approached too closely, and it was only by dodging behind a stall that he escaped as they turned to retrace their steps.

An indignant old lady regarded Davy with a malignant eye, and he had to buy a cane from her before she was convinced that he hadn't meant to snitch the till.

HE LOWERED HER BETWEEN THE SINGLE RAILS.

The Casino has many attractions, but the black type in its advertisements always has to do with the steeplechase. This steeplechase renders the words of man feeble and insufficient. It causes press-agents to run loosely to strange adjectives. It is the grand special, the prize feature of the show, and, altogether, the most exciting and indispensable part of the performance.

Four wooden horses slide down four iron shod rails for all the world like race-horses, and four people ride them. The horse that finishes first wins the race, and its rider receives a free ticket which enables him or her to ride in the next race without the payment of an additional ten cents.

The starting-point is up on the second floor, where the beer is sold in bottles, and after a dizzy downward plunge, the racing steeds disappear in a cavern of intense darkness, emerging at the far end of the grounds, and circling around in broad loops until the finish-line is reached.

When ladies ride, it is necessary to cast conventionality to the winds, because if a lady were to ride side-saddle, she would hit the ground on the first turn with a surprising wallop. You ride astride — man, woman, or child — and you clutch your wooden Pegasus with all the strength in your good knees.

So when Davy saw Nora and Pete heading for the steeplechase entrance, he just naturally followed, hoping that something would happen. He sidled along among the rest, buying his ticket mechanically, standing in line, and keep-

ing an eye on a certain ostrich plume in front. Four horses galloped in.

It takes two couples to occupy four horses. Pete led Nora to the waiting horse and helped her gallantly into the saddle, and, if it must be said, Nora fitted into the picture perfectly. Pete hopped nimbly to his horse, and the starter yelled for two more riders. A pale-faced youth clambered upon the horse on the inner rail, leaving a vacant horse between him and Nora.

Davy looked at the empty horse. It looked good. He slipped out of the line and covered ten yards in two seconds.

Nora was surprised. You can't pay attention to emotions on the Casino steeplechase. In a flash she saw that the rider to her left was Davy Fraser. Peter, on the off horse, saw it, too. Then everybody clutched with their arms, wrists, knees, and fingers as the passionless steeds shot down with a metallic roar.

Whether Davy had figured it out beforehand, or whether the inspiration came to him on that first downward dip, is something for historians to puzzle over. The cane he had bought under protest was in his hand, and beside him, hanging on for dear life, was Nora. Somewhere to starboard was the hated Pete, engrossed solely in the business of sticking to a wabbling hobby-horse.

When the four horses, breast to breast, disappeared into the dungeon part of the ride, Davy reached over and laid a detaining hand on the horse beside him—not the horse occupied by the pale-faced youth. He jimmied his cane down between the forelegs of his own steed until it reached the cog rail, and then, using it as a lever and still holding the tail of the horse to his right, he leaned against the cane desperately.

There was a sudden and perceptible diminution of its speed. The wooden skate swayed and bucked. So did the horse beside him. Slowly they drew up side by side, Davy still bent forward upon his trusty cane. The terrific momentum was being overcome. On his fiery steed, Peter was shooting ahead. On the other side of the track, the pale-faced youth had disappeared, leaving only a grating sound in the darkness.

As the two horses slid forward, a voice sounded:

"Is that you, Davy Fraser?"

"Is it me? You're dead right it's me! You hang on tight, and we'll be out of this hole in a minute. Look at the daylight ahead. Don't go and get scared. I'm working this thing."

The steeplechase-course winds around the south end of the Casino grounds, and for a brief space it curves over the fence that encloses the grounds. At the point where the horses cross the top of the fence, Davy gave one last push at his cane, and the two racers stopped.

"Here," said Davy. "We've got twelve seconds before the next bunch smashes into us. You got to jump."

He threw his arm around the girl and lifted her clear of the saddle. Then, with infinite care, he lowered her between the single rails, holding her by the hands, until she hung suspended eight feet from the ground, and then he dropped her.

Nora landed on the grass and crumpled up in a little heap. The cavern behind Davy suddenly began to roar, and he knew that another team of four horses was plunging down upon him. So, without further ado, he dropped his cane and slipped down, head over heels, and on the outside of the fence.

Two stationary wooden horses were plowed up into splinters and rendered useless by the collision that followed. No one was hurt. The riders who followed managed, luckily enough, to stick to their saddles. Below them, Davy was helping Nora to her feet and urging upon her the necessity of getting away before they were arrested for murder.

"D'ye know where we're going?" he asked as they hurried up toward the line of waiting cars. "You don't need to answer. We're going to be married. I'm going to marry you. You're going to marry me."

Nora was making a feminine noise that is either laughing or crying. It depends upon the situation.

"But what about Peter?" she asked.

"Oh, he wins, that's all. He wins the race because we didn't finish. Unless," Davy added as an afterthought, "unless that pale-faced guy beat him out."

Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 17.—Chauncy Discourses On the Patience and Labor that Goes to Make Up the Unrewarded Lot of the Ticket-Agent.

I FOUND Chauncy, our ticket-man, in a state of gloom. Outside the sun shone brightly, the chickadee was chirping to his mate, and the sound of empty-headed levity from the passing throng was borne in on the balm of the morning air.

Chauncy was downcast. He sat deep in the office chair and telescoped far down into his clothes, until nothing but his nose was visible.

"Has she said it can never be?" I asked tenderly.

Chauncy emitted a discordant grunt.

"Maybe she'll be a sister," I added consolingly. "By and by she may snug up closer. Sisters have that cunning habit. Let her know you are the High Panjandrum of the ticket-office, and that you can get passes any time for two—as far out as Minnie-ha-ha Falls."

"You are on the wrong trail altogether," said Chauncy, pushing his cap up far enough to see out from under the rim. "It's contact with the accursed populace that brings on this grouch. It's the people we are supposed to serve—the dear people—our esteemed patrons—who take advantage of us and rub it in on us, and leave us bobtailed when we are expecting the most from them."

"Doesn't the salary go on just the same?" I asked.

The Pride of Chauncy.

"It does," replied Chauncy. "But I have a pride in the business of the office—in the earnings—there is where I am disappointed."

"Does the president of the road know what a keen interest you take in the business?"

"Don't kid," said Chauncy. "Any man with red blood hates to have the game get away from him, and he feels lots worse when some one else beats him to it. Maybe you think a ticket-agent has nothing to do but sit on a cushioned chair, with an effervescent smile and shelf-worn stock of soft words, and await the procession of faces at the ticket-window.

"Maybe you think people tumble over one another to get to our window with their simoleons for tickets over our line. Maybe you think they actually fight for the privilege of riding on our cars. They may do that on Mohammed's cele-

"MAYBE SHE'LL BE A SISTER," I ADDED. "BY AND BY SHE MAY SNUG UP CLOSER.'

brated caravan route to Mecca, but in this land of the free and home of the rival road they don't. Indeed, they don't!' You've got to go out after them and gather them in; and about the time you think you have 'em, you haven't.

The Agent On the Trail.

"Some people think hunting the rhino, the hippo, and the wart-hog in darkest Africa is real sport; but it hasn't any thrills over bagging a passenger a rival line is after.

"Here are sample illustrations of how we conduct the passenger business:

"Exhibit A—Two months ago I was waited on by Professor Von Plunk, telling me he contemplated a journey over prairie, mountain, and coast for himself and two daughters. He wanted information about fares, routes, stop-overs, and side trips. For thirty days I constructed itineraries. I laid out for his approval an even hundred combinations.

"'Ah,' he exclaimed enthusiastically, 'how travel broadens the mind! What an education for my daughters!' I described every train, on every road, in every direction.

"I enumerated every attraction of the earth below, the fascination of the waters beyond, and the charm of the heavens above. I told of the silverware in the diners. I described the kind of buttons on the coats of the porters. I wore the back off the official guide. There were to be three tourist tickets as far west as Balboa's aqueous preserves. We needed the business.

Metaphysical Travel.

"The professor occupied all my spare time for one month. In the breathing moments he told me about himself in detail. I was an interested listener. Told me about his daughters — their wonderful talents in music and art and marvelous capacity for deep thought.

"His system was surcharged with a strange cult, and he unloaded all that

on me. Something about metempsychosis, or transmigration of souls. The nitness of the ego. The astral body detachable from this material frame, and which can make distant journeys and communications.

"I told him when a man had that sort of an apparatus it was no use for us to try to compete with him on a travel proposition. Our service costs money, and we can't go up against those ethereal projections.

"That was a flippant remark of mine, and he seemed to lose interest. What do you think he finally did?

"He took his daughters on one of those cheap one day-limit dollar excursions down to Louisville and showed them the Ohio River! Went on the other road, too!

"What did I get for all my pains? Nothing—only a few tips on the infinite—the eternal—and the immutable!

"Exhibit B—You know that excursion party I had worked up for Magoogoo Lake? We did not get them! That was what I was thinking about when you came in. It's all off. Didn't I tell you about it? I thought I did.

Philanthropic De Witt.

"About two months ago Mr. T. De Witt laid the proposition before me. He had a Sunday-school class of ten boys. It occurred to him that some time during the summer he would take his Sunday-school class on a personally conducted excursion to some lake for a few days' outing.

"He didn't care if it cost him twenty dollars for the trip. Two dollars per head for ten. De Witt was enthusiastic over it.

"'It will be a happy event for the boys. They will remember it all their lives,' said he.

"I recommended Winona. I went to great pains to get particulars and loaded him with information. Twenty dollars isn't much; but in these distressed times we are after everything, however small.

"De Witt came back in a few days. 'There'll be twelve instead of ten,' said he. 'We have two new boys in our class. We'll figure on twelve.'

"I went over the train schedule again with him. That's one fine thing about handing out information to a passenger a long way ahead. You got to tell it over again a number of times. If you write it out on paper for him, the passenger at once loses the paper. If you merely recite it, the passenger has forgotten it all, or is hopelessly jumbled by the time he reaches the station platform.

"'I think it will be Winona,' said De Witt. 'Guess I can stand two more without breaking the bank.' He added this remark with merry confidence. He was back again in a week and wearing a troubled expression.

The Beginning of Growth.

"'I wish you would see,' said he, 'what you can do for fifteen to Winona. Won't the road make a cheaper rate when there's so many? You see, we have three more new scholars; and it's going to be a little expensive, I'm afraid, unless the railroad helps me out a little. I've promised the excursion, but we ought to have better figures on fifteen than on ten.'

"Now, a railroad in devising rates for parties cannot see much difference between ten and fifteen. I told De Witt I was afraid we could not get any concession from the road. We would try, however.

"He bounded in a week later with a haunted look. 'The railroad will have to do better on that rate to get us. There's twenty of us now. There were five more new scholars Sunday. If they'll make it a dollar straight, I'll close up the business right away.'

"Of course, we could not give him the fare he wanted. At this stage of the proceedings the competing line butted in and made a bid for the business.

Competitor's Bait.

"They sent that 'Con-Man' McCarty, their traveling passenger-agent, up to see De Witt. He offered them Ooze Lake and back for one dollar!

"Did you ever visit that cattail swamp — that miasmic jungle? Take my word for it, it's only a frog-pond. I told De Witt if he took those innocent

"AH," HE EXCLAIMED ENTHUSIASTICALLY, "HOW TRAVEL BROADENS THE MIND! WHAT AN EDUCATION FOR MY DAUGHTERS!"

children out there for the mosquitoes to pump malaria into them, I would report him to the humane society.

"It is said a buzzard will scent a carcass a hundred miles. Same in the passenger business. Within the next two weeks we had representatives from every road in this country to see De Witt. His head buzzed with sylvan scenes, and his pockets bulged with the alluring literature of the rail. I caught him on the fly.

"'We had ten more new scholars Sunday,' he said hoarsely. 'There will be thirty of us. I think we will go to the Capitol and back. I am seeing the M. and G. road about it to-day. They offer us eighty-five cents for the round trip.'

Bait and Rebait.

"I saw at once that Winona was out of the question. I dropped that resort and hit on Magoogoo Lake. It isn't much of a lake. It has two canoes and three sycamore-trees, but it was the closest article on any road that could be called a resort.

"In the meantime poor De Witt was chasing up and down, running sidewise and going around in circles, interviewing and being interviewed, trying to connect with something cheap, for his class had now increased to forty-two!

Chauncy's Master-Stroke.

"Our competitors began to disagree. At the psychological moment I sprang it.

"'Why not Magoogoo Lake? I can get you there and back for forty-five cents per head, De Witt.'

"He grasped at it like a straw. 'There's now fifty-eight of us,' he explained, nervously passing his hand over his pale forehead. That'll be under thirty dollars. I'd better take it and close this thing up.'

"That week the local paper gave De

Witt a column on first page, extolling the benevolent impulse that led him to give an excursion to his Sunday-school class to Magoogoo Lake. You see, I tipped it off to the newspaper, and I read it with satisfaction. It was not exactly authorized by De Witt; but it sort o' committed the expedition to Magoogoo Lake, and that was where I thought I had turned a neat trick.

The Half-Fare Theory.

"I had, but for one little unforeseen consequence, that resulted from the newspaper publicity, I had so cunningly fostered. On the Sunday following the announcement there were twenty-seven additions to the class!

"Thus by sheer force of numbers Magoogoo Lake went down and out of De Witt's calculations. He took summary action. Delay meant bankruptcy. He loaded the class on the street-cars and took the whole bunch out to Phil Motter's park for a day!

"It cost him ten cents a head, and it took two cars to hold the class that started on a charter membership of ten.

"What did we get out of it? Not a sou! These were the things I was thinking about when you came in. These are the wherefores of this air of sadness."

There was a momentary interruption. A woman and her near-grown-up daughter appeared at the ticket-window.

"I want a half-fare ticket for my little girl to Shemungo," said the woman.

"Where is the child?" asked Chauncy, ducking his head and casting his eyes about in vain search.

"Why, this is her!"

"Oh, indeed!" exclaimed Chauncy. "She's not twenty-one yet, is she?"

"The idea!" retorted the woman with warmth. "She won't be seventeen until next February! Indeed, she won't."

"I am sorry, madam, but we shall have to charge her full fare. The rule is half fare between five and twelve."

"Well, that's funny. We've never had to pay full fare for her before. You're mighty particular, but I suppose I'll haft to pay it."

She glared at Chauncy with some hostility, and she passed in a silver dollar with a hesitating, reluctant motion.

Chauncy extracted full fare.

"That's something a woman never understands," he said to me. "If she has never paid full fare for the child before, why should she be asked to do so this time? It isn't a question of how old or what ought to be, but she's never had to pay it before, and it's all wrong

"THE IDEA!" RETORTED THE WOMAN. "SHE WON'T BE SEVENTEEN UNTIL NEXT FEBRUARY!"

to have to pay it now. That's the sort of argument you have to meet.

"There is no answer to that logic, and if followed up I see no reason why any one should ever be charged more than half fare, because, having paid it once, that is sufficient reason for the next time, and that starts one of those endless chains."

Billed Through.

The woman reappeared at the window.

"I want a way-bill for the girl," said she.

"A what?" asked Chauncy.

"A way bill. I want a way-bill for her."

"Oh, I see!" replied Chauncy. He took a piece of clip and addressed it to Conductor No. 6, informing him briefly that the bearer was Miss Susan Blinker and her destination was Shemung.

"That will put her in charge of the conductor, won't it?" asked the woman.

The woman took the piece of clip and would have thanked Chauncy, but the memory of the recent full-fare outrage was too fresh in her mind to permit any show of gratitude.

"What she wanted was a note to the conductor," explained Chauncy to me. "She called it a way-bill. She thought she had to use a railroad term, or we would not understand what she wanted. That note won't do any particular good, and it won't do any harm; just eases the mind of all concerned.

"Whenever grandpa, or grandma, or any of the youngsters, or the poodle dog is put on the train, the folks remaining want 'em placed directly in charge of the conductor. This is a fine arrangement.

"The conductor usually lets them sit in a seat and look out of a window, if they feel disposed. He permits them to leave the train when they reach their destination. He doesn't give the close, every-minute, personal attention to his charge that those behind imagine, as he has to divert his attention to minor duties now and then in going by. Nevertheless, he is a widely trusted man.

"But while you sit idly by, seeing and hearing the mishaps that befall a ticket-man, I want to point out to you my old friend Abraham Bunker, who lives one mile in the country and owns all the land in that part of the township. He now approaches the window. Hear me ask him about his daughter.

"How are you, Mr. Bunker?" said Chauncy cheerily.

"Only middlin'!"

"What can we do for you?"

"I wanted to get the correct time, that was all," replied Bunker, fumbling at a silveroid watch.

"Nine-twenty-seven and one-half," volunteered Chauncy.

"That's gittin' it down purty fine, ain't it?"

"Everything's right up to the hair's-breadth on this road. By the way, Mr. Bunker, how's your daughter? I understand she was dangerously ill last week."

Bunker looked up in quick surprise. The sunburn of his face shaded a little, and he walked out of the station rather briskly and without making any reply.

"It doesn't seem to me," I observed, "that your solicitude for the health of Mr. Bunker's daughter aroused much enthusiasm in the old gentleman."

"He didn't make any answer at all, did he?" said Chauncy with a wide grin. "I will tell you the story connected with it. It happened last week.

Some Saving Schemes.

"Maybe you do not know Bunker. He is one of those nice old farmers, with more chattels than he can get down on the inventory. Made it all by saving everything he ever got his hands on.

"Before the pure-food era, he sold maple molasses, which he manufactured from hickory-bark and corn-cobs. He used to take an apple that had one rotten side, cut it in halves, and stick the good half, by means of a little wooden peg, to the good half of another apple similarly affected. These characteristic side-lights go with the story.

"Last week Bunker took a car-load of fat steers to Cincinnati. You know how these things are arranged. The shipper is passed free with his live stock to market, but comes back as a passenger at regular fare.

"Bunker got to Cincinnati very early

in the morning, found a quick market, and was sold out and ready to return by ten o'clock. Now, our No. 26 leaves Cincinnati at ten-forty, but it only makes two stops between there and Indianapolis. It goes through here about fifty miles per hour.

he sought the superintendent's office and told a touching story to sympathetic ears: His daughter was dangerously ill — might not survive the day — would not the company let him go to her on No. 26?

"The superintendent gave 26 an

HE CAUGHT A FLEETING GLIMPSE OF THE FARM WITH TWO OF HIS HIRED MEN SITTING COMFORTABLY ON A FENCE IN THE FRIENDLY SHADE OF A MAPLE-TREE.

"Bunker wanted to come home on 26. The regular local train for this station didn't leave until 3 P.M. That meant he would put up twenty-five cents for his dinner and the loss of the entire day. Losing a day, with three or four hired men at home and no one to watch 'em and prod 'em along, was a mighty serious matter on the farm.

A Sympathetic Super.

"'The fool hath said many things in his time. Among other observations is one that 'Corporations have no souls.' Bunker evidently thought otherwise, for

order to stop at B——, and Mr. Bunker marched aboard with a cunning and triumphant chuckle.

"The superintendent had taken his address, and a little later I got a message from him to make inquiry and report quickly by wire, if Mr. Bunker's daughter or if any other member of the family was seriously ill.

"I got the house by phone. Naturally my inquiry alarmed Mrs. Bunker and aroused her curiosity to the highest pitch, but it elicited the information that all the Bunkers, big and little, were in their usual health, and that nothing out of the ordinary had happened the

household, save that the head thereof was in Cincinnati. Maybe something dreadful had happened to him. Goodness gracious!

"I wired the superintendent that the state of health among the Bunkers was the very best. No one ill. No calls for help.

"At Greensburg, where No. 26 made its first stop, the conductor received a message from the superintendent canceling his instructions to stop at B——, and to carry the passenger on to Shelby, the next regular stop, paying no attention whatever to his protest. Bunker went through here about fifty miles per hour.

What Bunker Saw.

"He got one fleeting glance at our familiar faces, and he caught a glimpse of the farm, with two of his hired men sitting comfortably on a fence in the friendly shade of a maple-tree. It threw him into a duck fit. He appealed to the conductor, but that man, with a heart of stone, knew his business, and Bunker unloaded at Shelby.

"He came sneaking home on the evening train from the west, and got out to the house in the deepening twilight—in the sad and solemn gloaming—just as his dying daughter was chasing a Jersey cow into the pasture-lot for the night."

I arose to go. Chauncy laid his hand on my arm and detained me a moment longer.

"When we were speaking about revenue for the company a while ago," said he, "I thought of Billy G—— at X——. When it comes to getting all the money the patron will stand for, Bill has us all beaten.

A Round-Trip Corpse.

"You know, when a corpse is taken away for burial, it travels on a first-class ticket. Billy is the only agent I ever knew that succeeded in selling a round-trip ticket for the corpse.

"Not long ago a gentleman of a frugal turn of mind approached Billy's window for a ticket for a corpse. When you ask a ticket agent for a ticket, he will automatically come back at you with the question, 'One way or round trip?'

"So Billy spoke up kind o' unthinkingly, 'One way or round trip?'

"'How much is saved on the round trip?' asked the thrifty passenger.

"'Ten per cent,' responded Billy. 'Twenty-five cents in this case.'

"'Give me a round trip, then,' said the man; 'twenty-five cents is as good to me as to the railroad company, I reckon.' No man ever saved a cent on a ticket purchase that did not get off that comfortable observation.

"I don't know whether they ever straightened it out or not. Economy, you know, sometimes has its kinks. It is probable that when the buyer of the ticket follows the lamented aforesaid through the pearly gates, and compares notes, he may find cause for reporting Billy to St. Peter, and Billy will get his.

"One more remark about round trips. When a passenger knows he wants a round trip, and beats you to it, he invariably hands you this triple combination: 'Give me a round-trip ticket to Hardscrabble and back, both ways!'"

MAILING BY THE TRAINLOAD.

THE record mail consignment made in this country by a single individual or firm was established some months ago by a Chicago company. The same firm also held the previous record for the largest mailing consignment.

A year ago last March they established the first record by mailing three million eight hundred thousand catalogues, each of which weighed two ounces. On that occasion thirty tons of mail-sacks were required to convey the two hundred and sixty-five tons of advertising matter.

This year the firm mailed six million catalogues. The total weight was about four hundred and fifty tons, and sixty-five tons of mail-sacks were required. In both cases the consignment was delivered direct to the depots without intermediate handling.

If an attempt were made to mail such a consignment in the ordinary way through a letter-box it would take a man, working eight hours a day, including Sundays, and mailing an average of three catalogues a minute, about eleven years and five months to complete the task.

"Windy" Dodges the Boss.

BY HOWARD GRAHAM.

THE TRUE STORY SERIES. A guilty conscience is the most relentless of all masters. Man's mind usually follows the line of least resistance and that is usually on the trail of his fears or his hopes. So it came about that "Windy" hopped all over the Bessemer yards one weary day, in an effort to keep clear of the Old Man, only to walk heedlessly into him when his fears had been lulled to rest by his success.

TRUE STORY, NUMBER THIRTY-SEVEN.

When a Man Breaks a Rule He May As Well Let the Result Catch Up Right Away, Because It Will Get Him Anyway.

IT was one summer when I worked at Bessemer ore yard that this incident occurred; it was there I first became acquainted with Windy. Of all men, railroad men have a knack of characterizing a man by a nickname so striking that one cannot help acknowledging that it describes its victim to perfection.

Need I quote examples? They will occur to any one with a fairly wide acquaintance among railroad men. There was my old friend Romeo Hooker, of the Third Ward passenger yard.

Who that ever saw poor old Romeo, with that soulful expression on his face and that enormous curved nose of his, would deny that "Romeo Hooker" fitly described him? Many a time have I joined with the boys in a laugh at his expense when they were eating their lunch in the telegraph office at the old Lake Shore Depot; but when he was killed by a switch-engine we all mourned a friend.

Or need I allude to that old stand-by, "Flatwheel" Murphy? He limped somewhat; well, if you have ever watched a freight-car limping by on a flat wheel, you will recognize the appropriateness of the nickname.

It is hardly necessary to tell you at length why "Windy" was named thus. I've forgotten his other name—in fact, I doubt that many knew it outside of those who had to do with the time-roll. He was simply "Windy," and that sufficed. If you had ever heard him talk, you would know that no other name could fit him as well.

But if Windy did talk too much and

EDITOR'S NOTE. All the stories published in this True Story Series have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

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too loud and too long, we still liked him in spite of it. True, many a time would I gladly have punched his nose for him, when I would be sweetly sleeping in the morning hours—for I worked "nights" in the telegraph office at the ore yard—sleeping on the soft side of the grain-door that served as a desk in the pump shanty, which, in turn, served as an office. The switch crew would make a run for the hill with a string of empties to take up to the Tilden Mine; and Windy, whose business it was to close the switch, would stick his head in at the door and wake me from my slumbers with the yell:

"Hi, kid, will you shut the gate after us?" And yet I always *did* get up and close that switch, in spite of the objurgations I sent after the retreating switch-engine and its crew. By the time they came down from the hill again, and I rode back to town with them for breakfast, we would be the best of friends.

Now, as I was about to relate to you, the book of rules had a stringent rule at that time about drop-switches. I read the other day that a friend of Commodore Vanderbilt once told him that certain measures which the commodore wanted the board of directors of the New York Central to take were strictly against the laws of the State of New York, whereupon the commodore replied with some surprise: "Well, you don't suppose you can run a railroad in accordance with law?"

I am afraid that a few railroad men take about the same position with regard to the book of rules. At all events, Windy did not view the rule about drop-switches with unfailing respect.

One day, when he was up on the hill with the switch-engine, he did as he had often done before. There were some ore jimmies to be placed at the Rand stock-pile.

"We'll cut 'em off, and you go down there with 'em, Windy," said big Red Anderson, the foreman in charge of the crew. "Can you hold 'em?"

"Sure, Mike," says Windy, and climbed on the string of empties. Just then he saw a Polish laborer, one of the stock-pile trimmers, come along the track. Why should he walk back to the engine after making the switch when the "dago" could just as well hold those cars?

"Hi, Polski," he yelled at the trimmer, "you go along with these jims and stop 'em;" and climbed down off the cars, as the engine started them.

"Me go 'long," the trimmer volunteered, and started for the moving cars.

But, alas! just then he tripped and fell; and before he had picked himself up and collected his wits, the cars were too far for him to catch them; while Windy, depending on the foreigner, had gone back with the engine. Well, there was about the prettiest pile-up at the end of that track you ever saw, for it was a heavy down-grade, and the way those cars piled over the end-post would have gladdened your heart to see.

What availed it that Anderson expressed his opinion of Windy to that unlucky individual in the choicest terms at his command, and that Windy, in turn, poured out the vials of his wrath on the unfortunate Polack? The damage was done.

"Say, the old man won't do a thing to you when he hears of it," prophesied Red to the downcast Windy; "you might as well ask for your c. g. to-day as to-morrow." And well he might predict trouble, for Taylor, the trainmaster, whom Red euphoniously designated as the "Old Man," had a reputation of being as quick-fire as a hair-trigger. Excuses didn't, as a rule, go very far with

The very next day he would, no doubt, be out to see the ore yard, and then Windy could see his career in that yard terminated pretty suddenly indeed. For once, Windy did not have much to say the rest of the day; that pile of ore-jimmies weighed on his otherwise joyous heart, and made him more quiet than usual.

Nor did it cheer him up very much that the others painted the Old Man's temper to him in the blackest colors. At the supper-table he looked so glum that pretty Annie O'Neil, who waited on the table, noticed it and solicitously inquired:

"What's the matter, Windy? Has she gone back on you?"

Windy forced a smile, and said: "Naw, I just ain't feeling quite meself."

But when Shorty McCann, and Jimmy Holverson, the engineer, began to enlighten Annie as to the day's mishap, duly embroidered and enlarged, Windy pushed back his chair, and, with a few random remarks about "grinning [illegible]," left the table, followed to the door by the snickers of the crowd. And when, that evening, Mike Flaherty, who had just come in on the way-freight, casually asked Windy, "How's that, Windy? I hear you broke in a Polack today for your understudy," there was a free fight before Andy, the barkeeper of the Miners' Paradise, separated them with the ice-pick. In short, Windy retired in no very charitable nor joyous frame of mind that evening.

The next morning Windy stopped at the depot office to hear the news before going to work, and Harry Connors, the agent, said to him, winking at Frank Smith, the operator

"Say, Windy, Frank there says that Old Man Taylor will be over on Number Seven and wants to see you."

"Ah, g'wan and leave a fellow alone," Windy returned, with little of his usual spirit, and made his escape from the office. He knew that Connors was joking him; but he knew, too, that the trainmaster very probably would be over on Number Seven, and in that case would no doubt want to see him—for no good object, either; Windy could feel that in his bones.

If he could only keep out of the Old Man's way until Number Six went back—the trainmaster would probably go back on that train—and in that case might forget all about the wreck; at least, cool down about it a little. He walked over to the siding on which the 457 stood, patiently sizzling and occasionally popping off steam, until the crew should all be there.

"Say, Red," he ventured to the foreman, "I don't feel right to-day. Can you let me off this morning?"

"WHAT'S THE MATTER, WINDY? HAS SHE GONE BACK ON YOU?"

Anderson sized him up rather suspiciously and answered with a grin: "Aw, pile on here. You ain't sick any more'n I am. You're just afraid of the Old Man."

"The dickens I am," wrathfully replied Windy, though in his heart of hearts he knew that Red was right. He swung himself on the run-board of the engine, as the engineer slowly pulled out for the hill track, determined to brave it out. For two hours they worked on the hill; then Windy, looking down into the valley far below him, saw Number Seven pulling up at the depot; and he felt almost positive that he could distinguish the trainmaster's tall form on the platform of the station, in spite of the distance.

When he saw that tall form mount the 323, another of the yard engines, and saw that engine start for the hill

track. Windy felt that he was getting cold feet—surely, the Old Man was coming up the hill to fire him on the spot. Ordinarily, he would not have cared so much; but Annie's smiles had enmeshed his heart, and the prospect of leaving Bessemer seemed dismal indeed.

Anxiously he cast about for a way to escape the avenging doom coming up the hill. How could he manage to keep out of the Old Man's way? Suddenly an inspiration flashed upon him. The 323 had no work on the hill just then, but probably was only coming up to bring up the trainmaster. He would watch his chance with them.

Cautiously he slid off the run-board of the 457, and, watching a moment when nobody was looking his way, he jumped behind the shaft-house, near which the engine was working. Nobody missed him for a moment.

Presently the 323 came puffing along and stopped near his engine. Sure enough, they had brought up the trainmaster, and he at once began an earnest conversation with Red. As Windy watched them around the corner of the shaft-house, Red seemed to be looking around for some one. Windy felt sure that the look could only be meant for him.

Stealthily he made his way down the track, and at the end of a string of cars watched for the 323. As she came along to go down the hill again, he swung himself on and started down with them.

"Hallo, Windy," said Bill Smith, the engineer, with a twinkle in his eye, "I thought I heard the Old Man wanted you?"

IT COULDN'T HAVE DEPRIVED HIM OF SPEECH MORE EFFECTUALLY.

"He didn't say nothing to me," Windy truthfully replied. "I got to go down in a hurry."

So, then, the trainmaster had been asking for him. It was with gloomy forebodings that Windy rode down into the valley. True, he had dodged the Old Man, but that was only temporary relief; wouldn't things be only worse because of it?

For a minute Windy entertained heroic resolves to go up again and beard the lion in his den, but presently he got cold feet again. For an hour he hung around the outside of the station, unwilling to go in and face the jokes awaiting him.

Suddenly he saw his own engine coming down the hill track again. Windy sneaked around a box car at the end of

the house-track and awaited her coming. He saw Taylor get off and go into the station. As the engine started again, he made a rush across the tracks and got on the rear, unseen. Not until they were [illegible] see him.

"Well, I'll be tectotally hornswoggled!" he exclaimed in surprise. "Where you been, Windy? The Old Man looked for you all over the hill."

"Let him keep on looking," Windy replied ungraciously; "I had to go down."

Red eyed him with an amused grin, but said no more; he saw well enough what Windy was trying to do.

"Well," he said, "you're all right now; he's gone down again."

Windy went to work again with rather a doubtful air. He didn't feel a bit safe yet; but, anyway, the evil hour had been postponed. It cheered him up a good deal when he saw Number Six pull out, and he rode down to dinner feeling safe—at least, for the time being.

He even cheered up enough to pass a few jokes with Annie, and after dinner he resumed his work, whistling quite merrily. Suddenly he seemed to feel a foreboding. He turned his eyes toward the road that led into the valley—and what did he see coming up afoot but the dreaded form of the Old Man!

So he hadn't gone back on Number Six, after all, and was now coming up to devour him! In a panic, Windy climbed over the tank to the farther side of the engine and dropped off without a moment's reflection; anything to get away from the dreaded interview. Windy sat for two hours at the top of the shaft-house, much less interested in the coming and going of the skips bringing up their loads of iron ore than in the coming and going of the trainmaster. Not until dusk was falling, and he had seen the trainmaster go down the hill with the engine, did he come down from his airy perch and venture down toward town, also.

He did not go to supper at all; for worse than the trainmaster did he fear the gibes of the others of the crew, who all boarded at the same place as himself. A lunch at Kelly's would serve him until after Number Eight had gone, and the trainmaster with her.

Then Windy went over to the station, intent upon finding out what the Old Man might have had to say. Jauntily he walked into the office and cried out, as he saw Connors sitting on the counter:

"Well, did the Old Man—"

That was as far as he got, for just then he saw Taylor himself sitting in the agent's chair, with his feet on the table, and evidently just engaged in a conversation with the agent. Both turned and looked at Windy.

Had a ghost suddenly appeared to Windy, it couldn't have deprived him of the power of speech more effectually. With open mouth he stared at the trainmaster, whom he had fondly hoped to have eluded, and who now so unexpectedly turned up.

But hardly had Taylor seen Windy, when he jumped up and jovially accosted Windy:

"Where the deuce have you kept yourself? I've been looking for you all day. We're going to put another engine on the hill, and I want you to take charge of her."

And, sure enough, so it was. Here the trainmaster had been trying to find Windy all day to promote him, and Windy had just as strenuously dodged the trainmaster all day for fear of getting fired! As a truthful chronicler of facts, I do not even venture to imperil my reputation by telling you how many treats it cost Windy when the boys found out the true inwardness of his unsuccessful attempt to escape promotion.

Full Speed Ahead.

Still Racing Merrily over the Metals and in Hope That We Shall Pass All Records Before the End of the Run.

THE Southern Railway is said to be working on plans for a passenger-station, to be erected at Lynchburg, Virginia, at a cost of $50,000.

THE Gulf, Colorado and Santa Fe is asking bids for the construction of an eight-stall roundhouse at San Angela, Texas. The estimated cost is $36,000.

EXTENSIVE locomotive orders have recently been placed by the Atchison, Topeka and Santa Fe, including 4 Mallet compound and 18 Atlantic type engines. These have been ordered from the Baldwin Locomotive Works.

THE Franklin Construction Company, Frisco Building, St. Louis, is in the market for 6,300 tons of sixty-pound relaying rails, for use in the construction of the proposed North Missouri Railway between Jefferson City and Columbia, Missouri.

THE Norfolk and Western has awarded the contract for its proposed depot at Petersburg, Virginia, to the Harrison Construction Company of that place. This road is also said to be contemplating the construction of a passenger-station at Suffolk, Virginia.

IN addition to the 30 locomotives ordered some time ago from the American Locomotive Company, the Chicago and Northwestern has placed the following additional orders with the same builders: 25 Pacific type, 40 consolidation, and 15 switch-engines.

THE recent inquiry of the Chicago and Northwestern for 724 tons of bridge material has resulted in the contract being divided between the Worden-Allen Structural Company, of Milwaukee, Wisconsin, and the Modern Structural Steel Company, of Waukesha, Wisconsin.

THE Boston and Maine, it is reported, will start work this summer on its proposed repair shops to be built at Somerville, Massachusetts. The first building to be constructed will be a one-story repair-shop 170x203 feet. The structure will be of steel construction with pile foundations.

IT is reported that the Baltimore and Ohio will erect a roundhouse, machine, blacksmith, and tin-shops; a two-story brick storehouse, oil-house, sand-house, a power and electric-light plant, carpenter-shop, and two water-tanks with a capacity of 50,000 gallons, at Benwood, West Virginia. Estimated cost, $300,000.

ENGINEERS are working on plans for important changes in the location of the Beaver freight and passenger terminals of the Pittsburgh and Lake Erie on account of the new bridge being built across the Ohio River at that point. Instead of moving the present passenger-station across the

main-line tracks, as was originally planned, it is said that the present station will be moved to some other point along the main line, and that an entirely new and larger station will be built at Beaver, Pennsylvania.

THE American Car and Foundry Company has received orders from the Long Island Railroad for the bodies of the 120 motor-cars to be purchased for use in the tunnel under the East River, New York, and the same company has received orders from the Chicago and Northwestern for 1,000 box cars and 500 ore-cars.

ORDERS have been placed by the Atchison, Topeka and Santa Fe for 10 postal and 40 combination cars from the American Car and Foundry Company, and from the Pullman Company 7 composite, 1 observation, 4 diners, 10 smokers, 27 coaches, 28 chair-cars, and 3 cars with separate accommodation for negroes and whites.

THE Pittsburgh-Buffalo Coal Company has ordered 900 four-ton mine cars. The order is divided up as follows: Youngstown Car Company, 100; Standard Car Manufacturing Company, 500; Connellsville Manufacturing Company, 100; Ohio Ceramic Company, Cleveland, 100; Arthur Koppel Company, Pittsburgh, 100.

ORDERS, each for 12,500 tons of steel rails, have been placed by the Northern Pacific with the Lackawanna Steel Company and the Indiana Steel Company. Those to be supplied by the former are Bessemer, and those from the Indiana Company are to be open-hearth rails. These are in addition to the 15,000 tons recently ordered by the road from the Illinois Steel Company.

IT is now possible to make a rail journey between the Atlantic and Pacific oceans entirely under the protection of block signals, and almost entirely under the protection of automatic electric block signals. This journey is 3,245 miles. The last big gap in the electric system was closed recently by the Northwestern, when it installed signals between Boone and Logan, Iowa, a distance of 117 miles. The journey described begins at the eastern terminus of the Lehigh Valley and ends at the Oakland, California, ferry.

THE Pennsylvania Tunnel and Terminal Company, operating the Pennsylvania Railroad tunnels under New York City and the rivers, is installing in its Long Island City power-house two Westinghouse turbine-alternator sets of 2500 kilowatts capacity each for lighting the tunnels and terminals. The dependability required in this service has demanded that every precaution be taken to insure absolute continuity of operation of the generating and distributing systems. The alternators will supply three-phase, 60-cycle current at 440 volts.

PRESIDENT RIPLEY, of the Santa Fe, is quoted as saying: "We are going to build a line across southwestern Texas of several hundred miles, which will give us the shortest route in the United States from the Pacific coast to the gulf. A good portion of the proceeds of the bond issue will be used for this purpose. The country traversed by this line in Texas will open one of the best agricultural sections in that State. Dry-farming in the Southwest is still problematical, but there is a great deal of enthusiasm on this subject. Gradually a new class of cultivators of the soil will be trained, and success will no doubt come.

THE railroads at Grand Crossing station, Chicago, have decided to expend about $8,000,000 on track elevation at that point and vicinity. Those interested are the Illinois Central, Pennsylvania, Lake Shore and Michigan Southern, and the Nickel Plate. The plan provides that the Illinois Central shall be elevated at Seventy-Fifth Street, and the Lake Shore and Pennsylvania shall pass over it at a higher elevation. At Seventy-Ninth Street the Nickel Plate will pass under the Illinois Central. The Illinois Central is to be elevated from Seventy-Third to Eighty-Seventh Streets, the Nickel Plate from Seventy-Sixth to Eighty-Third Streets, and the Lake Shore and Pennsylvania from Cottage Grove Avenue to Stony Island Avenue. Work is to begin at once and should be completed by December 31, 1910.

The Sunny Side of the Track.

If Everything's Rusty and Stiff and She Runs Like a Thrashing Machine, Just Get Down and Oil Around with a Little Laughter.

ROUND-TRIP DISTANCE.

A BRIGHT-EYED old man boarded the train at St. Paul, bound for Seattle. As the conductor passed through the car the old man stopped him and asked how far it was from St. Paul to Seattle.

"Sixteen hundred and twenty miles," the official answered curtly.

The next time the conductor came along the old man stopped him again and asked him how far it was from Seattle to St. Paul.

"See here, my man," said the conductor pompously, "it's sixteen hundred and twenty miles from St. Paul to Seattle, and its sixteen hundred and twenty miles from Seattle to St. Paul, do you understand?"

"Maybe so," said the little man modestly. "I didn't know. You see, it's only seven days from Christmas to New Year's, but it's a long time from New Year's to Christmas."—*Houston Post.*

COMPARATIVE VIRTUE.

"ALAS!" confessed the penitent man, "in a moment of weakness I stole a carload of brass fittings."

"In a moment of weakness?" exclaimed the judge. "Goodness, man! what would you have taken if you had yielded in a moment when you felt strong?"—*Boston Globe.*

THE COMPANY'S PROPERTY

THE holiday traffic was at its height, and there were the usual piles of passengers' luggage on the platform of a great London terminus. In the usual way, the porters were banging it about, while the owners mournfully looked on.

Suddenly the station-master appeared, and, approaching one of the most vigorous baggage-bashing porters, shouted in stern tones:

"Here! What do you mean by throwing those trunks about like that?"

The passengers pinched themselves to make sure that they were not dreaming, but they returned to earth when the official added:

"Can't you see you're making big dents in the concrete platform?"—*Answers.*

SIREN SPRING.

A STORY is told of a man who was walking beside a railway line with a friend who was very hard of hearing

A train was approaching, and as it rounded the curve the whistle gave one of those ear-destroying shrieks which seem to pierce high heaven.

A smile broke over the deaf man's face.

"Man," said he, "that's the first robin I've heard this spring!"—*Human Life.*

REASSURING THE DOG.

A RAILROAD eating-house in southern Georgia, which enjoys the reputation of being one of the worst places of its kind in the State, has an ancient darky who announces dinner to the incoming passengers by ringing a huge bell.

One day the old negro was accompanied by a sad-eyed, long-eared hound, who at the first ringing of the bell lifted up his voice in a most dismal howl

The old darky stopped and gazed at him for a moment, and with a "Hush yer mouth!" started ringing again.

Again the old hound, with nose in the air, sent forth a long-drawn howl.

This was too much for the bell-ringer, and, turning on the hound, he remarked:

"Now, what in de worl' is you makin' sech a fuss erbout? You don't have ter eat here lessen yer wants ter."—*Harper's.*

HIGGSY'S SPEED-DEVELOPER.

BY JAMES FRANCIS DWYER.

The Conductor Sets His Inventive Genius to Work in Order to Take His Girl to the Dance.

"TIGER" HANNIGAN put his red face inside the old loft room over the barn at the Blue Point terminal and howled for Conductor Hogan. Outside on the track, Hogan's motorman, on a full car, helped the starter by repeating his missing mate's name in the intervals when Hannigan paused to take breath.

The motorman had eleven trips between him and 9 P.M., and as that hour had been recorded in his mind as the time of his arrival at the Railroad Men's annual ball at Mulrooney's Hall, he was exceedingly annoyed. Besides, it was snowing hard; his feet were damp, and he had just discovered that his name was on the "Red List" on a charge of running his car over Sherman Avenue on "the loop."

The men sitting around the stove in the waiting-room looked up unconcernedly as Hannigan continued to yell the name of Hogan. They were waiting for their own run-numbers to be called, and took little interest in the daily hunt for crews that took the road before them.

"Any of you feliers see him?" cried the starter.

"Saw him in the feedery an hour ago," muttered "Smiler" Ferris. "He was cornerin' the cruller market."

"Hogan! Hogan! Where are you, Hogan?" roared Hannigan; and when he paused to listen, the motorman's supporting cry came in out of the street and echoed round the room as if seeking shelter from the storm.

Suddenly "Deaf" Monaghan shook himself and looked round wildly.

"Any one calling Hogan?" he asked.

"I'm calling him!" screamed the starter. "Where is he?"

Monaghan kicked over his stool and rushed across the room.

"He's up here, experimentin' with that invention of his," he muttered as he reached the door of the attic. "I told me to tell him when his run number was called, but I didn't hear it."

Hannigan's facial area was deep purple. "I'll give him inventions!" he yelled. "I'll teach him to have me [illegible] his name like a court-crier!"

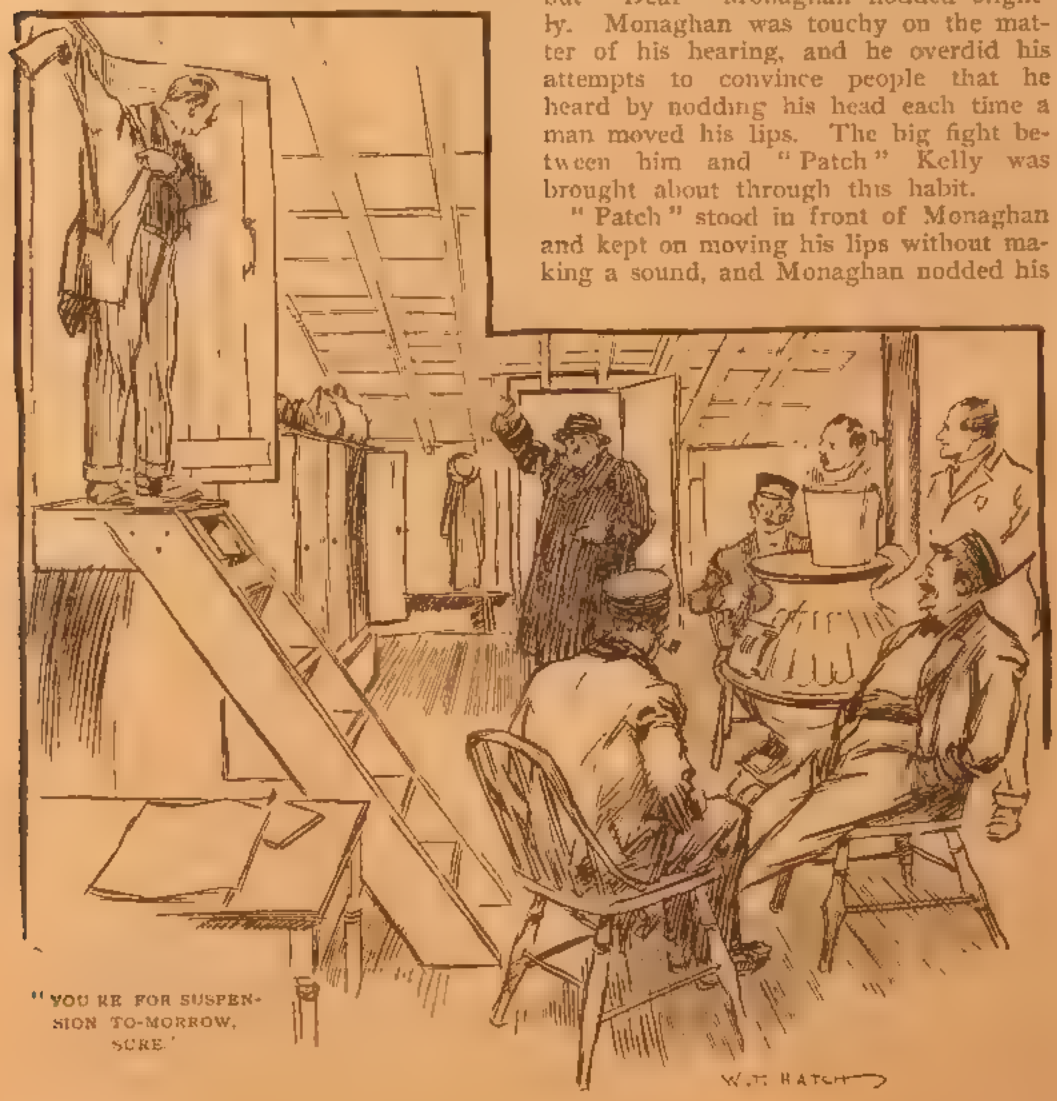
Then, as Hogan appeared on the ladder, he unloosed new threats. "You're for suspension to-morrow sure!" he cried. "The road is all tied up! Jump onto that car; an' if I don't kill your inventin' bug inside twenty-four hours, my name isn't Hannigan."

He followed the conductor out into the storm, and his angry threats chased the car when the annoyed "mote" flung on the power and raced away up the snow-smothered track.

"Whizzer" Welch leaned over and poked the stove-fire industriously after the starter left the room, and then, addressing himself to the red coals, he remarked slowly: "It'll take more than Hannigan to root the inventin' bug out of a man's brain once it gets into it."

No one contradicted the statement, but "Deaf" Monaghan nodded slightly. Monaghan was touchy on the matter of his hearing, and he overdid his attempts to convince people that he heard by nodding his head each time a man moved his lips. The big fight between him and "Patch" Kelly was brought about through this habit.

"Patch" stood in front of Monaghan and kept on moving his lips without making a sound, and Monaghan nodded his



"YOU RE FOR SUSPENSION TO-MORROW, SURE."

head eleven times before the grins of the others convinced him that Kelly was making a fool of him. It was a costly trick for "Patch." After Monaghan had finished expostulating with him, he was unable to take his car out of the barn for three days.

"An inventor is born, just like a poet," continued Welch; "an' you might as well try to stop a frog from hoppin' as to keep 'em from corralin' the ideas that come into their thought-patches."

"I had a brother like that," murmured Dan Moran. "He went in for experimentin' with dynamite, an' he got nearer heaven than I'll ever get."

"Whizzer" Welch gave the fire another vicious prod and tilted his stool backward.

"I worked with an understudy to Thomas Edison once," he began. "Every morning he was in the line up at the super's office, 'cause he wanted to demonstrate something that he had invented overnight, an' he kept that super busy side-steppin' the labor-savers. The super reckoned he wasn't a patent-agent, but that didn't feeze Higginson. He said his inventions were all for the good of the service, an' on that account the boss had to look 'em over.

"Higgsy had Nick Tesla and a few of the smaller idea-chasers tied to the fender of his little car, I tell you. He fixed up a patent grip that could lift old ladies and fat gents up on the platforms, but the boss didn't smile on that. He reckoned there weren't enough old females an' tubby guys in the town to warrant the expenditure, an' he told Higgsy to turn his brain to something that was really wanted. Higgsy admitted the logic, an' went out to clinch with what the boss called a long-needed want."

Hannigan put his head in the door and threw a run-plate at "Deaf" Monaghan to acquaint him that his turn had come, and Monaghan walked away regretfully, as if Welch's story, of which he hadn't heard a word, interested him mightily. "Whizzer" glanced at him, winked at the others, and continued his yarn:

"Higgsy came back next day with enough joy-creases on his face to fit out a wedding-party. He had an appyratus like one of those cash-carriers in a department-store, an' his idea was to fix one at every seat an' have a wire running to the tail-end of the car so that each passenger could send his nickel along to the junk-snatcher an' leave that person to look after the drunks and ancients getting on an' off.

"The super spun a cold eye on it, an' Higgsy came out of the office unravelin' the joy-furrows at full speed. He was pretty sick of the super. He let out round the depot that the boss wouldn't have enough imagination to see double if he was bringing home a load of whisky, an' some one put lemon-peel embellishments on the insult an' carried it along to his lightness.

"That's how Higgsy got put on the horse-cars. He said he didn't mind, an' he reckoned he'd get some experience of horses, an' he reckoned right. The horse-line circumnavigated the town, an' it did little biz. There was only one car on the road, an' the horses that dragged it were the biggest lot of wasters from Baffin Bay to Patagonia.

"They didn't run to schedule, but sixteen circular trips was considered a day's work, an' the driver of Higgsy's car didn't care how long it took him to do it. He said he took the job because he had weak lungs an' wanted fresh air, an' he didn't study Higgsy a little bit when he gave his lungs three or four hours extra in the open. He took a look at Higgsy the first day the conductor came on; an' he guessed he wasn't too strong in the lungs either, but the inventor didn't argue the point.

"The horses were the limit. They'd never take any notice of the go-ahead bell when they slowed up to take a passenger aboard, 'cause they had no faith in the judgment of a conductor. They'd just turn their heads an' watch till the passenger settled himself comfortably in his seat, an' then they'd move off at a walk, so that he could get used to the motion. Always before tackling an incline they'd stop an' ask each other if all was ready for the climb; an' the more Higgsy protested against the time he wasted the more the driver let 'em loaf.

"The inventor had a girl living a little way from the depot; an' when the sixteen trips got drawn out over so much time that he didn't have a minute to see her between knock-off and bedtime, he

got mad. He started to put his inventin' bug on the matter of horse speed, an' he gave the question some healthy consideration.

"He promised to take his girl to a dance on the fifth day that he was doing the merry-go-round stunt; an' as he promised to be at her place at nine o'clock he looked around for some trick that would stop the 'lunger' from staying on the road till midnight.

"At 'swing-time,' in the slack part of the afternoon, they had only finished ten trips, an' it looked as if Higgsy's girl would have to be her own escort, unless the horses were in a particularly out-of-the-way mood. The inventor doubted their ability to change their pace without cause, so he brought down an electric battery to the barn; an' before the driver harnessed up the mules he put the affair under a seat, and then ran a couple of wires under the car, and connected them with the steel bars of the swingletrees.

"Then he just waited.

"The mules started out at their usual 'Dead-March' step, and after they picked up four passengers at the depot they commenced to walk round the town, the 'lunger' drawin' big breaths in at every inch of the route. His doctor had ordered him to do the record breakin' breathin' act on every opportunity; an' the mules seemed to understand that he couldn't do that while they were gallopin'.

"Half-way down the little hill from the depot one of 'em stopped to bite a thistle that was growin' near the track, an' just then Higgsy turned on the current. On account of it being a down-grade both of the mules were backin' against the swingletrees. It was their first introduction to electricity. They were pretty amazed.

"They looked at each other, as if they thought it a trick of the 'lunger,' but he was breathin' big, so they guessed it wasn't. Higgsy saw their surprised look, an' he turned it on a little stronger. They thought they had run against a nest of hornets or rattlers. The white mule that was chewin' the thistle dropped it out of his mouth an' lit out for the horizon at a gallop, an' the other fellow joined in.

"The driver got the astonishment-bug in a bad form. He started out to spread some peaceful language over them, but they were leanin' on the bit in great style. The brake hadn't been used for twelve months, an' it wouldn't act; an' Higgsy just stood on the tail-end, an' made calculations on the speed they were travelin' at. The mules had come to the conclusion that somebody ridin' with the 'lunger' had tried to light a fire on their flanks, an' they didn't want to give him another opportunity.

"After a time some of the passengers wanted to get out, an' Higgsy gave the driver a bell to stop. The 'lunger' just give him a sickly grin, an' nodded to the mules. Higgsy gave him three bells; then he went out on the front platform to expostulate.

"'They won't stop,' said the driver. 'They're not boltin', but they've made up their minds they won't stop.'

"'I'll have to report you,' said Higgsy. 'Three ladies wish to get off, an' you won't stop.'

"'I can't!' yelled the 'lunger'; an' while he was arguin' the mules were doin' the Marathon of their lives.

"Higgsy started to note down the time an' place, an' then he went inside to quiet the three old women. The men had dropped off while he was talkin' with the driver, but the lady passengers were makin' affirmations that they'd sue the company for false imprisonment if the guy in front didn't get his team in hand.

"The driver just took no notice of the umbrellas and hands that waved to him from the sidewalk. The mules took no notice; an' every passenger they left behind Higgsy made a note of, an' warned the driver occasionally how strict the company was about runnin' away from fares.

"A copper man got on when they were half-way round, an' the driver got him to lend a hand on the reins. The cop was pretty strong, an' he steadied the mules down, but the moment he got off Higgsy turned on the current as they were going down another hill near the depot, an' the car didn't stop to report to the starter on that trip.

"It just tore by the depot like a runaway trolley, an' when the super saw it knockin' up the pace he nearly took a fit from astonishment. That team of

cattle had no eye for thistles on that run, an' they didn't pick up a passenger on the route.

"When they reached the depot, on the next time round, the starter an' the super rushed the horses as they were trottin' by, an' Higgsy put in his report against the 'lunger.' It was Higgsy's innings just then, an' he thought of all the hours that had been wasted through that feller doin' his big breathin' stunt in workin' hours. He showed how the company had lost two dollars an' thirty cents because the 'lunger' wasn't able to stop the bus, an' the boss swore he'd pull it off his pay-check.

"They changed horses then; an' another team that had never met electricity came out to take the place of the white mule an' his mate, who were still doin' a hard think tryin' to find out what had bit them. The new team started off on the old two-mile-an-hour pace.

"Just as they were going down the hill one of 'em sights the thistle that the white mule had dropped when the current bit him. This nag pulled up to get it, an' Higgsy gave him a shock that made him forget all the thistles in the United States.

"That team circumnavigated the town in seventeen minutes, an' that was the record. They thundered past the depot at a gait that would make Lou Dillon look pretty sick, an' Higgsy pretended to weep when he saw the super gapin' after them.

"He had the super on toast that evenin'. Every now and then he'd ring the bell sarcastic like, an' occasionally he'd go out an' ask the driver if he wouldn't pull up for a minute; an' the 'lunger' got that mad he promised to punch Higgsy silly the moment he got the mules to stop. The super swung aboard at the depot; an' when he heard the driver's tale he took the reins from him an' started to steer the team himself. He pulled them up long enough to let a big German an' his wife get aboard; an' then Higgsy gave them another shock, an' the merry-go-round act started again.

The German was going to a party, an' when the car rushed by the place he wanted to stop at he began to make inquiries.

WM. HATCH.

"THE GERMAN'S WIFE GAVE HER HUSBAND A HELPING HAND."

"Higgsy said it was the fault of the driver. He reckoned that he was quite willing to pull up if the driver would, an' the German went out to argue the point with the boss. The super told him to mind his own business, an' the German did. He brought the boss a crack over the head with his umbrella, an' the 'lunger' had to take the reins again while the two were settlin' the matter on the floor of the car. The German's wife gave her husband a helping hand, an' the super got a pretty bad mauling before Higgsy an' a cop could separate them. Higgsy was havin' the time of his life, an' when he saw the boss an' the German

going off to the police station he nearly wept.

"'The 'lunger' got off the car when they switched it into the barn to arrest the German an' the super, an' he reckoned he had enough of jigger-steerin' to last him for a week, so the starter took a hand. He told Higgsy confidentially that he was the best horseman in his district when he was a youngster, an' he nearly believed he was tellin' the truth when he saw the way in which the new team acted.

"'Then the inventor upset his pride. He gave the mokes a little dose of the fluid just to stop the starter's tongue, an' they tore around the township at a two-eleven gait. They hit a hand-cart and knocked it into little pieces, an' three mounted policemen and a fire-engine were chasin' them full speed when they were doin' the second time round the [illegible].

"Higgsy didn't want to go round for another trip, so he took the wires out an' wrapped up the battery in a sheet of newspaper. When they pulled up at the depot, he stepped off an' made out his run-card an' a few accident reports about the breakin' up of the hand-cart an' a collision with an ice-wagon, an' then he found he had two full hours to get into his glad rags an' travel to the lady's home.

"But those six mules didn't forget that electric current for a while. Not one of 'em would stop to pick up a thistle or a bit of green grass for months afterward, an' the 'lunger' had to give up the deep-breathin' stunt 'cause they traveled too fast."

"How did the superintendent get on?" asked Moran.

"Oh, him," cried "Whizzer"; "he got fined ten dollars for assaultin' the fat German, an' Higgsy celebrated so strong that he got fired. But he—"

The red face of Hannigan came in the door with a jerk.

"What's up with you, Welch?" he screamed angrily. "I've been calling you for the last ten minutes."

Welch picked up a coat and hurried out into the night, and the group around the stove relapsed into silence. Presently Dan Moran stood up and felt around for his top coat.

"Holy Moses," he cried, "me coat is gone! That lyin' feller whisked it away while I was thinkin' of the 'lectricity man an' the horse-car; but if I catch him between this an' Tuckapanna, I'll give him a bigger shock than the horses got."

WHEN ARMOUR WAS A SHACK.

GEORGE A. SHELDON, depot master of the Lake Shore station at Adrian, Michigan, who died recently, after forty-six years of continuous service with the Lake Shore Company, was a veritable encyclopedia of railroad incidents. His narrations were confined to actualities, thus giving them a real value, says the *Detroit News*. He was for many years a conductor, and among the best of the incidents he related the following:

"One day there stepped aboard my train a well-dressed, business-appearing man, who, as he tendered his fare, remarked:

'I see you are still on the road, Mr. Sheldon.'

"'Yes, I am still at it,' I replied, 'but I am not certain that I remember you, though I think I have seen you.'

"'Yes, you have seen me before,' emphasized the passenger, 'and while you doubtless have forgotten it, I still remember that you once did me the greatest favor of my life. Come to my seat when you get time, and I will tell you about it.'

"When I had finished collecting fares I dropped into the stranger's seat and he continued: 'Years ago I was four days brakeman on your train. At the end of the four days you took me aside and remarked in a tone of sympathy, "I am sorry to have to tell you so, but the fact is, young man, you are too much of a fool to ever make a good railroader. Take my advice and quit." I took your advice and went into other business, and the result is I have made a fair fortune. I thank you for your counsel.'

"What is your name?" I asked.

"'Phil. D. Armour, of Chicago,' replied my ex-brakeman, 'and I shall always remember your kindness. I was a stupid railroader and you advised for my good.'

"Until this interview," added Mr. Sheldon, "I never suspected that Phil. D. Armour, the packer, was the brakeman I discharged years before."

THE DAM-BUILDERS.

BY BANNISTER MERWIN,
Author of "The Girl and the Bill," "The Sword of Tarroloya," "The Corner."

The Portrait of a Queen Plays a Prominent Part, Which Is Not Immediately Apparent.

CHAPTER I.

The Broken Shilling.

AS the dusty buggy came to a stop and its two occupants made ready to get to the ground, the young man at the drafting-table in the tent looked up from his work, laid his compasses aside, and stepped quickly out into the open.

"Hallo, Smith," said the man who had been driving the lathery horse—a heavy man, with smooth-shaven cheeks and a bunch of brown beard on his chin.

"Hallo, Mr. Garth," replied the young man, shooting a swift glance at the other man in the buggy.

"I've brought Mr. Briggs out," explained Garth, letting his ponderous frame lightly to the ground and turning to his companion. "This is Mr. Larry Smith, Mr. Briggs."

"Glad of a glimpse of you at last, Mr. Briggs," said Smith heartily, stepping forward and extending his hand as the stranger followed Garth out of the buggy. Then, after Briggs had reservedly accepted his greeting and acknowledged the introduction, he shouted: "Hi, there, Madden!" and a moment later a man came running from the corral to get the visitors' horse.

"It requires strong lungs to make one's self heard in this din," remarked Briggs in an aside to Garth.

The construction-work had just begun again, at the close of the hot, silent, noon hour, and the air sang with the tap-tap-tap of drills, the creaking of the straining derricks, the panting of the engine, and the shouts of the foremen. The long wall of the dam was rising stone by stone, and the steep slopes of the mountains, and the black cliffs that rose from the upper edges of the slopes, frowned grimly down upon the few-score human ants, so busy at their Lilliputian task.

Larry Smith stood aside to let the two visitors enter the tent. He used the moment for a quick study of Thomas Briggs, the Denver capitalist, whom until this moment he had not seen, and he noted that Briggs was a thin-faced, formal man of fifty, in appearance a lawyer rather than a promoter of large enterprises.

Larry could imagine him as he must have been at twenty—a very hatchet of a youth, chopping his way through difficulties keenly, and attaining at last a nervous victory over his environment. With that success, the fountains of his life appeared to have dried up.

Larry did not like the man. He had keen perception, it seemed, and a certain cool, dry way of meeting events; for the rest, it was impossible to read much of what lay back of his pale eyes, though they expressed something which Larry found disturbing.

Yet those eyes had already, in a brief glance, taken Larry's measure. They had unerringly discovered his alertness, his honesty, his enthusiasm; and they had inferred the specific happiness that kept him smiling.

Garth had bent over the blue-print on the drafting-table. "What's this?" he asked.

"Working plan for the elbow in the pipe at the turn down there by the spur

of Craig's Peak. When did you leave Denver, Mr. Briggs?"

"Yesterday — with Mr. Garth. We have been going over matters, as no doubt you know."

"And Briggs is well satisfied," put in Garth, failing to see the momentary frown of annoyance on the Denver man's brow. "He considers that you are making good progress. Where's Marly?"

"Out on the line. He should be here in a few minutes. We both had to work into the noon hour to-day. I was about to go up to the shack for a bite. You will come with me, of course?"

Garth looked interrogatively at Briggs. "Thank you," said Briggs, "but I had something on the train a couple of hours ago, and I must catch the afternoon express on to Salt Lake."

"But Mrs. Smith—" insisted Larry.

"You have actually gone and got married?" asked Garth with a note of surprised interest. "Congratulations!"

"The week after you went to Denver. We're quite comfortable up there in the shack."

"I'm afraid I haven't the time," said Briggs with a faint but polite show of reluctance. "Mr. Garth told me that you either just had been or were about to be married. Perhaps, on my return trip—"

"We shall certainly hope to have you at our table then," said Larry. "But if your time is so short now, you'll want to have a quick look at things." He went to the opening of the tent. "Here comes Marly now," he said.

Behind the broad back of Garth, the face of Thomas Briggs became alive with shrewd interest, and he shifted his position so that he might have a view of the approaching figure. A tall, loose-jointed young fellow it was, ambling easily up the road.

To a soft gray shirt and khaki riding-breeches and puttees like Larry's, the newcomer had added the touch of a broad-brimmed hat and a red-and-black silk handkerchief around his neck. He had a long, good-natured face, not lacking in strength and quizzical humor. He waved his hand at Garth and nodded to Briggs, greeting the Denver man more elaborately when first introduced.

The four men went together to the broken white wall of the rising dam. Only a few weeks of work remained to be done, and Murdock, the contractor, pointed out to Briggs, at Larry's request, the exact condition of the structure.

Some of the sluices were not completed, and the top wall had to be raised several feet. In the big stone power-house below the dam the turbines and dynamos were being installed.

Larry Smith was justly proud of his work on this project. He had discovered the possibilities of a power-dam in Bendwater Canon several years before, while he was doing a job for a mining company in Larkin City, and soon afterward had filed for water power, securing control for a sixty foot fall.

At the same time he had got options on the cheap land above the dam-site, so as to provide for a storage of eight miles. The one-thousand-dollar State tax and the five hundred dollars for the survey had used up a great part of his savings, but he had been able to have borings made, thus assuring himself that the dam would have a safe foundation in solid trap.

About that time he had met Jack Marly, not long out of college, an interesting idler, who, after hearing Larry's account of the big chance in Bendwater Cañon, offered to put four hundred thousand dollars into the venture. The two young men had then gone to Larkin City and interested Aaron Garth, a local mining capitalist, who agreed to supply eight hundred thousand dollars.

For his rights, Larry was allowed a quarter interest in the company, so that he and Jack Marly together controlled exactly half the stock, and Garth the other half. Strict provision was made that neither party should acquire more than fifty per cent.

Now, twelve hundred thousand dollars in cash was not enough to see the work through. At least two millions would be required, although the dam-site was favorable to easy construction.

Therefore, at Garth's suggestion, a short-term mortgage on the property had been given to Thomas Briggs, of Denver, a former associate of Garth's, by the terms of which Briggs had paid in eight hundred thousand dollars after Is-

confidential engineer had visited Bendwater Cañon and returned to Denver with a favorable report.

The original plan had been to sell the electric power on future contracts while the dam was in process of construction, and then, on the strength of these contracts, to issue bonds, from the sale of which enough money would be realized to pay off Briggs's mortgage. But there had followed a period of hard times.

The men in charge of the big stamping-mills at Larkin City were loathe to promise to instal the power within any given period, and several new projects which would have used the power were postponed. Larry and Jack stood ready to interest Eastern capital, but Garth apparently feared that Eastern men would ultimately secure control of the whole plant.

At his suggestion, therefore, he was authorized to negotiate with Briggs for a renewal of the mortgage. By Garth's account, Briggs had been reluctant, but finally he had agreed, in writing, on two conditions.

His first condition was that the three men in control of the stock should make no effort to secure other capital. Briggs's reason for this demand was the necessity of keeping up the value of the property by the strictest kind of finance.

Under the second condition, the dam was to be completed, the machinery all installed in the power-house, and the last foot built of the stave pipe by which the waste water was to be conveyed over Klingerman Pass, farther down the cañon, into Mormon Valley—all this by the date on which the original mortgage expired. The irrigation of the arid Mormon Valley was expected to prove a highly profitable scheme.

Despite Garth's urging, Larry and Jack had hesitated for some time before accepting these conditions. They had recognized the predicament in which they might find themselves if the work were not finished within the time-limit.

At last, however, after studying the situation over and over, they had agreed. That had been six months ago, and now, with four weeks to the end of the time-limit, the outlook was that only three weeks would be required to complete the work. They were behind the original schedule by nearly a month, but that was no more than was to have been expected, considering the many unforeseen delays that had come to pass.

Therefore, two weeks before Briggs made his flying visit to the plant, Larry Smith had gone back to Michigan to marry Mary Andros, and he had brought his bride to the little shack which he had built on the mountainside.

This history revolved in Jack Marly's mind as he helped Larry show the plant to the visitor. He found Briggs a puzzling, disturbing personality. The slender capitalist might once have been an outdoor man, as Garth said, but plainly he was not of late years accustomed to moving about over rough footing, for he stumbled now and then, and the exertion so told on him that frequently he pulled out his handkerchief and mopped his brow. But his eyes traveled swiftly from point to point, taking in every detail of the work. He missed nothing.

"Where have I seen him before?" Jack asked himself. It came upon him with a flash, after a time, and he straightened his shoulders with a jerk when he remembered. But he said nothing — only watched Briggs as he had never watched a man in all his life.

It was an hour of elation for Jack and Larry. This was their first real triumph — the opportunity to show Thomas Briggs how much they had accomplished. And yet they were cool about it.

As Larry was saying to Briggs: "Of course, we have not finished yet, after all. Murdock will have to crowd. In fact, he may have to put a night shift on the pipe."

"Sorry I haven't the time to go over the pipe line to Mormon Valley."

"Well," said Larry, "you've seen how the pipe begins, here below the power-house, and I guess you were able to make out its course along the mountainside while you were driving up."

"You seem to have trenched it in pretty well."

"Had to! It must be protected from falling rocks."

"And this Mormon Valley that is to be irrigated—you have bought it?"

"For a song! Without water it is worthless."

"A pocket in the mountains, is it not?"

"Yes; a tract about two miles square, with an easy grade for a road through a narrow cañon down to the plain. Any waste water from the canals can run down that cañon and rejoin the Bend-water out in the open country."

"And your water-storage here—when do you close the dam?"

"As soon as the sluices are finished—by the last of next week, we think—we will close them and collect enough water to start the dynamos on the thirty."

"Of course." Briggs wrinkled his face into a smile, but there was a false note in his voice, "I have never had anything much to do with power-dams before—except as an auxiliary in mining. Well, Garth?"

"It looks like we'd have to start back, if you're going to make that train," said Garth, pulling awkwardly at his bush of beard.

Larry and Jack saw them off—the self-contained Briggs and their burly partner. Then they turned and looked at each other silently. Each felt questionings in his mind, but neither of them was ready to express a doubt.

"Come up to lunch," said Larry. "Mary will be wondering what has happened to us."

Jack nodded toward the drafting-table. "How about that?"

"The blue-print? It's all ready. Jackson will come and get it when they want it."

They climbed, side by side, up the slope.

"It's warm," remarked Jack.

"Yes." Larry gestured down the cañon slopes, where the six-foot stave pipe, built of long, bevel-edged strips of Oregon pine, wound its seemingly endless length.

"Looks like a big worm, doesn't it?" he said. But his eyes were on a tiny, distant cloud of dust which rose behind Garth's buggy, and he would have given much to know what that formal little man from Denver was saying to Garth. And Jack Marly, he knew, was also wondering about Briggs.

Mary met them at the door of the shack. "Who was with Mr. Garth?" she asked. "I had a glimpse of you down at the dam." She nodded down toward the line of masonry.

"Briggs," replied Larry.

She looked at him, further questions in her brown eyes, but he smiled quietly and said nothing about the visitor. "Are you going to feed us?" he asked.

But she was already setting the dishes on the table.

"And how has the housewife been all morning?" inquired Marly.

"Awfully busy," she laughed. "Wing Fah went down to Larkin City three hours ago to buy certain things which he considers quite essential to cooking. He tried to tell me what they were, but I couldn't understand him."

"You'll get used to his lingo, dear, when you've been in the West a little longer," said Larry. "Did he ride down with one of the teamsters?"

"I think he set out to walk the entire distance—sixteen miles, isn't it?"

"Eight down, eight back!" Larry sipped his tea.

"I'd like to know—" he continued meditatively, then checked himself.

Mary set down the platter she was carrying and said: "What would you like to know, Larry?"

"I?" He started. "Something about the work."

"Oh!" She knitted her brows in perplexity. It was not like Larry to bring his worries into this noon hour. But he collected himself, after a glance of warning and understanding at Marly, and turned the talk upon light topics.

After luncheon the two men did not linger. They set off at once down the slope, leaving Mary somewhat puzzled. When they were out of sight of the shack, Larry suddenly halted. Jack [illegible] himself upon a boulder.

"Well?" Larry.

"Well?" Jack Marly had taken some trifle from his pocket and was turning it over and over in his fingers.

"Something's wrong!" said Larry.

"Yes!" Jack drew a long breath. "Yes, something's wrong."

"I wish we had seen this man Briggs before," continued Larry. "He's a master. He showed too much silent interest in this property. The fellow is no mere money-lender."

"I'm afraid you're right, Larry." Marly glanced down at the dam. "Suppose we get at our own suspicions. What did you notice?"

"First of all, I noticed that he didn't ask questions enough."

Jack nodded.

"And then—oh, pshaw! I can't explain it, Jack. It was the man's manner; his quiet sureness; less what he said than what he didn't say."

"Did you get onto the fact that he and Bill Murdock were already acquainted?" asked Marly.

"What?"

"I'm sure of it. Briggs was as indifferent as a piece of stone, but Murdock gave a little jump as we came near him, and he looked at Briggs and opened his mouth as though he were going to speak. I caught a frown on Briggs's forehead. And Garth seemed uneasy all the time they were here."

For some time they stared moodily down the cañon, their minds troubled by vague surmises.

"I hope we haven't been blind fools," said Larry at last. "Perhaps it's silly to be disturbed by one man's personality; but when you come to think of it, we're in a curious position—bound not to try to draw any new capital to our aid, and bound to have this job done four weeks from to day."

"Why on earth should he have insisted on that time-limit anyway?" demanded Marly.

"Oh, we've been all over that ground, Jack. As Garth represented the case, it seemed a normal demand. Briggs wanted some assurance that we would push things. He didn't care to promise to renew the mortgage unless we proved our good faith—and all that sort of thing."

"He's plausible!" commented Marly. "Quite plausible!"

Larry straightened up and squared his shoulders. "Three weeks will see the work done," he said; "and we have four. I don't believe we need worry about it."

Marly did not answer.

"After all, Jack, we have nothing to disturb us except an unaccountable distrust of a man we have seen only once for a few minutes."

"*And* the fact that he conceals his previous acquaintance with our contractor," drawled Marly. "It would be mighty easy for Bill Murdock to delay the game."

"But Murdock is under bonds."

"True; but—" Marly broke off short and tossed into the air the object he had been fingering, catching it as it fell.

The gleam of it caught Larry's attention.

"What's that thing, Jack?" he asked

"Something Briggs dropped when he was taking out his handkerchief," replied Marly. "It is a broken shilling."

Larry reached for it. The jagged line of the old fracture formed the inner edge of the irregular half-moon of silver; it had cut in two the head of good Queen Victoria, leaving the chin and lower cheek and the neck. There was the date also—1871.

"What do you make of it?" asked Larry.

"I don't know. It's a token or a lucky piece, I suppose." Marly took the fragment of coin and slipped it back into his pocket.

"But Jack"—Larry spoke with surprise—"why didn't you give it back to him?"

"I don't know that, either," replied Marly slowly. "I just kept it, that's all. It means something—and anything that means something about Thomas Briggs is worth studying, isn't it? More than that, I don't believe his kind of man needs a lucky-piece, do you?"

CHAPTER II.

The Blue-Print.

JACK MARLY had a habit of keeping things to himself. He drifted along amiably upon the surface of life, and his deeper thoughts and feelings were seldom in evidence. The explanation of this trait is that he had been brought up by a stepfather who was a taciturn, rich, corporation attorney; and he had learned in boyhood that persistent silence was the best protection from unpleasant criticism.

That same curious upbringing accounted no doubt for the fact that the

lad had loafed through college, learning little from the curriculum and much from casual acquaintance with his fellow students. His professors had despaired of him; his stepfather had been driven to sharp anger by their reports; but the total result of all this bother was that he had managed to squeeze through his examinations at the last.

Shortly afterward, his stepfather made over to him the half-million dollars which had been left in trust for him by his mother. "Spend it as fast as you like, John," he said; "but when it is gone, don't come back for more."

"I sha'n't," replied John shortly. "Good-by, Mr. Harrington"—for he had never learned to address his stepfather in any other way.

"Good-by," said the older man, extending the cold fingers of his right hand for a farewell hand-shake. Then his mouth relaxed slightly, and he seemed about to speak. After all, he was not altogether without sentiment for this likable young fellow. But Jack had turned on his heel and was leaving the office, and the stepfather resumed his reading of the documents on his desk.

Jack promptly went abroad. When he returned, two years later, he had left nearly a fifth of his fortune at Monte Carlo—an error of judgment for which he felt some disgust, but no contrition.

"Why should I regret a lesson that I needed?" he asked himself. He sat no more at green tables, however, but wandered genially from New York to Chicago and back as far as Detroit, avoiding old friends as much as might be, and making many new ones. Thus he came across Larry Smith, liked him, and decided to risk the remainder of his money in the Bendwater Cañon scheme.

He had never told Larry about his stepfather, nor about Monte Carlo; nor did he tell Larry now that when he saw Thomas Briggs he recognized him.

He had never actually met Briggs before; but once, in New York, he had seen the man leaving his stepfather's office, and his stepfather had said to him afterward: "That was a man who should be in prison."

Nothing more than that; but Jack had never forgotten his stepfather's words or the face of the stranger. His stepfather was not a man to make such a statement without warrant.

And now the "man who should be in prison" held the mortgage on this property, and Garth was his former associate. And unless the work were completed in four weeks, the mortgage would unquestionably be foreclosed; and that in spite of all Garth's hearty assurances that Mr. Briggs was good natured, that Mr. Briggs would never dream of foreclosing, that the only reason Mr. Briggs insisted on a time-limit was to protect himself against the possibility of the work not being pushed ahead so rapidly as it should be.

More than this, Jack found himself considering various ways by which unscrupulous persons might easily delay the completion of the dam. Larry and he, in such an event, might shout "Conspiracy!" till they were black in the face, but the courts of the State would never decide in favor of the two young men, as against Garth and Briggs, on such an elusive charge.

Larry was, above all else, an engineer. He did not pretend to an elaborate acquaintance with the crooked ways of finance, and while he knew that the possibilities of trickery were by no means small in the Bendwater scheme, he was too busy with technical problems of construction to give much thought to the other side of the game.

Though he had suspected Briggs, he was inclined to dismiss his own suspicions. Jack felt, therefore, that the greater part of the burden of watchfulness must fall upon him.

That was, doubtless, as it should be, since he was of no real help in the constructive work. He had been performing such duties as Larry could delegate to him on the pipe line, but he knew that a twenty-five-dollar-a-month inspector could do them just as well. Here at last was a real job for him.

Later in the afternoon Larry came upon him in the drafting-tent. "I've been thinking about Briggs," he began. "Do you know, Jack, I believe that manner of his is pure vanity—a desire to appear sure about matters of which he knows little. It is the pose of the capitalist, eh?"

"Perhaps," replied Jack.

"Barring cloudbursts or earthquakes," continued Larry, "we have nothing to worry about."

Jack meditated. "You don't really need me on the work, do you?" he said at last.

"Well —" Larry hesitated. "Of course, it's a joy to me to have you with me." The words, Jack knew, were sincere.

"But there's nothing I am doing that Ives can't do."

"I shall have to admit it," smiled Larry. "But, you understand—"

"Then, suppose you figure without me for a few days, Larry. There may be nothing in our suspicions of Briggs, but I'm going to keep an eye out. Leave that to me. You have your hands full with other matters."

"Just as you like, Jack!"

A shadow darkened the entrance to the tent. The big frame of Bill Murdock stooped and came in. "Got that blue-print ready for the elbow in the pipe, Mr. Smith?" he asked. "The gang needs it."

"Why"—Larry glanced at the table —"didn't you get it? I left it here, all ready for you, when I went up to lunch."

"Haven't seen it," said Murdock indifferently. "Didn't want it till now."

Jack scanned Murdock's face, and it seemed to him alive with hard cunning.

"I don't see how it could have blown away." Larry was hunting about. "Are you sure one of your foremen didn't get it?"

"The foremen asked me for it," explained Murdock.

They made a thorough search, but the blue-print was not to be found. "I had marked the alterations on it, too," said Larry thoughtfully. "That's a day's job. Well, Murdock, put your men on the lower section. I'll mark up another print, and you can have it by to-morrow noon. Keep busy on the pipe."

"All right!" Murdock departed.

"So they're beginning to lose things," mused Jack to himself. But Larry was saying: "Funny about that print. This is the only time anything has been lost. I told Murdock I would leave it on the table for him. And it's the last important working-plan, too. The rest of the pipe is plain, straight work."

Jack did not reply. He went down to the corral and told Madden to saddle a pony, and presently, mounted on a nervous mustang, started up the cañon.

He followed the bridle-path that wound up at one side of the dam-site and descended to the old road a few hundred feet above. He wished to ride a long way, for it was his experience that nothing cleared his brain like horseback riding.

He looked down at the top of the gray, uneven wall of the dam. Scores of men were busy building the blocks of stone into place. Others were working below at the sluices

Soon the waters of the stream would be hemmed in behind this masonry fortress, and slowly a lake would form between the narrow walls of the valley, extending back half a mile, then a mile, then two miles, and so on for six or eight miles, almost to "Sweden," as the little valley at the distant head of the cañon was known.

How the waters would press against the dam! How sullenly they would resent their imprisonment, and search cunningly for every tiny crack by which they might secretly undermine the structure and escape to their old freedom.

But the dam would hold. "If it ever goes down," Larry had often said to him, "I hope that I shall be under it."

The mustang shied. A bit of paper had floated into the path.

Jack glanced down. It was a small, irregular bit of white paper, and it was charred at the edges. Suddenly a puff of breeze whirled it over, and on the side which was now uppermost its color was a rich, deep blue.

Jack was on the ground in an instant. As he had guessed, the paper was part of a blue-print. Several white lines crossed it, but there was not enough of the original plan to admit of identification.

The explanation seemed simple. Some one had thrust a blue-print into one of the forges, and the charred piece had floated up into the hood and out at the chimney. But he could not prove that this was part of the plan that had disappeared from the drafting-tent. It might be a piece of a print that was spoiled in the making.

He folded the charred paper and put it into his memorandum-book, with little expectation that he would ever find a use for it. Then, remounting the pony, he continued at an easy lope on up the cañon, which widened as he proceeded until it was a comfortable valley, with a quarter-mile strip of bottom-land.

Within a few months all this valley would be under water. The few cabins, separated by intervals of a mile or more, had already been abandoned by their owners.

Jack's thoughts returned to the blue-print. He felt morally certain that Bill Murdock knew something about its disappearance. If Thomas Briggs and Aaron Garth had conspired to hinder the completion of the work, in order that the mortgage might be foreclosed profitably to them, they would probably have to work through Murdock.

Of course, Murdock, being under bond to finish the work on time, would so arrange as to make Larry apparently responsible for the delays. A multiplication of such incidents as the disappearance of the blue-print might easily set the work behind a full week.

Superficially, he had only the barest suspicion that Briggs and Garth were planning to freeze him and Larry out. Yet he knew that such things were often done, and done so carefully that it was almost impossible to prove the fact.

Briggs's character and his manner had made Jack certain that something was wrong; and the prize at stake would be very much worth while to Briggs and Garth, for the property might easily be worth five or six millions after a few years.

Larry and Jack had, indeed, considered the possibility of a freeze-out from the time when they first got Garth to go in with them. But they had known that in this regard chances had to be taken.

Until this day it had not occurred to either of them that any one would actually tamper with the work itself. "And Larry doesn't believe it now," muttered Jack.

The valley was now widening out into an amphitheater, several square miles in extent. This was "Sweden," comprising a dozen well-irrigated farms, occupied by Norwegians, who had immigrated thither from Minnesota several years before. To the people of Larkin City and the vicinity all Scandinavians were "Swedes," a belief which accounted for the misnaming of this settlement.

Jack had not for many months ridden so far. Formerly the people of "Sweden" had used Bendwater Cañon as their principal road to Larkin City, sixteen miles away, but since the building of the dam had begun they had been obliged to use a longer road through another cañon.

One of Larry's most difficult promises had been that, as soon as the reservoir was full, he would have a new road dug out of the side of the mountains in the upper part of Bendwater Cañon, to take the place of the section of road which would be covered by the water.

The stream, which left "Sweden" a considerable body of water, was there formed by several distinct branches—rushing brooks which sparkled through green fields of grain and alfalfa. There was also a network of small irrigation ditches, dug by the thrifty Norwegians. It was a garden spot, this "Sweden," set like a jewel among the mountains.

Jack reined in, and sat looking over the green prospect. The only taint in the fine clear air was the smoke rising from the chimneys of the scattered farmhouses, which squatted here and there like gray excrescences amid the brilliant fields.

"Mormon Valley will be just such another paradise when we get the water in," thought Jack.

He rode forward for, perhaps, a quarter of a mile. It was in his mind to get a glimpse of some of the people of "Sweden." Presently the road turned, and he came to a bridge crossing a little stream.

The nearest house was still a third of a mile beyond. He stopped at the bridge and, throwing the reins over the pony's head, climbed down to get a drink.

But as he glanced up-stream, through the green field, he saw something that made him exclaim. Not more than a hundred feet away, lying among the rocks at the water's edge, was the body of a woman. The high alfalfa had shut her off from his view as he approached the bridge.

She was motionless, and her white face was turned up to the sky. Without pausing to consider, Jack hurried toward her.

CHAPTER III.

Thekla.

WHEN Jack had come close to the body he saw that it was that of a girl, dressed in a flannel blouse and a short skirt of some rough gray material. Her face was very lovely, straight-featured, and crowned with a glory of fine-spun yellow hair, but the eyes were closed.

At a glance she seemed to him like a sleeping princess, but her breast did not perceptibly rise and fall with the breath of life. Dead or alive, she was not sleeping, and, indeed, he dared not hope that she lived.

As he knelt beside her his foot struck something which proved to be a trout-rod; not a clumsy, cheap pole, but a delicate whip of split bamboo. A creel, which was still caught around her shoulder by its thin strap, lay on the ground beside her. The cover had fallen open, and a ten-inch mountain-trout, still radiantly gleaming with moisture, lay within.

He laid his hand on the girl's left side. At his touch she suddenly stirred, like one in a dream, and his heart bounded as he realized that she was not dead.

Dipping his hand in the stream, he sprinkled her face. She sighed deeply. The closed eyelids, which he was watching so intently, fluttered, wavered, slowly opened, and two deep blue eyes stared for a moment unseeingly into his. Then the lids fell again.

He chafed the limp hands—fine hands they were, and seemingly unroughened by toil. Presently she gave a little moan and looked at him again. "What happened?" she asked, in a dazed whisper.

"I don't know," said Jack calmly. "I found you here. Better not try to talk yet."

She lay silent for some time; then she said: "I remember now. I was fishing." She groped for the creel. "My foot slipped, and my head struck when I fell."

She tried to struggle to a sitting posture, and he put his arm about her shoulders and helped her. "Ah!" she exclaimed, with a wry little smile. "My head aches, and I am dizzy."

"Then don't try to sit up."

"Oh, yes," she said reassuringly. "I am hardy. The dizziness will soon pass away."

"If you will let me help you to this boulder, you will have something to lean against."

Without permitting her to rise, he drew her gently across the two or three feet of ground, and she leaned back against the boulder. Then she probed her hair with her fingers

"This was the place," she said, wincing at the touch of her own fingers.

"Let me see." Jack carefully parted the coils of yellow hair, discovering a bump of considerable proportions. She submitted quietly to the examination, prolonged by the fact that the fascination which the hair had for him was constantly distracting his attention from the injury. In the network of those golden strands his thoughts were much entangled, but soon he seated himself where he could look upon the greater marvel of her face.

"There is no fracture," she said.

"How can you be sure, without an examination?" he inquired anxiously.

She laughed in an amusement which he did not comprehend. "I made the examination with my own fingers," she said.

Yet she had not objected when he had followed her examination with his own. He did not press the matter.

"I infer that you are feeling better," he remarked.

"Much. Very soon I shall get up and go on with my fishing." She reached for her rod, and pliantly swished it through the air to make certain that it had not been hurt. It bent nearly double at the motion of her lithe wrist.

"Do you know," said Jack, leaning on his elbow and gazing at her with unhidden admiration, "if there had only been a bit of prairie-fire hereabouts when I discovered you I should have taken you to be *Brunhild*."

She raised her straight eyebrows. "*Brunhild* a fishing?" she inquired, her mouth twitching into a faint smile.

"Why not? Even a valkyr must eat."

"And discovered by a cowboy *Siegfried!*"

He colored. "Oh, these things," he said confusedly, indicating his hat and knotted handkerchief. "I suppose they *do* have a tenderfootish look."

She smiled.

"But I enjoy 'em," he added. "And my name, I'm sorry to say, is not *Siegfried*. It's Jack Marlow."

Through the fringes of her long eyelashes she searched his face. "And my name," she said at last, "is Thekla."

"It might be a valkyr's name," said [illegible].

"Thekla Wist," she added, with pretty decision.

Jack roused himself from his reverie. "Then you must be Peter Wist's daughter," he ventured. She nodded.

Jack knew of Peter Wist, the head man of this Norwegian settlement, the judge, mayor, almost king, by informal recognition of his compatriots. For the Norwegians of "Sweden" were a law unto themselves. They did not carry their disputes to the courts at Larkin City; and as they paid their State taxes without demur, and were as orderly as any superior government could wish, they were not interfered with.

Larry, however, had had trouble with Peter Wist. The old Norwegian stubbornly refused to approve of the Bendwater dam, since he would not be convinced that it promised increased values on the property at "Sweden."

He was suspicious. Formal written promises barely assured him that the road through Bendwater Cañon would be rebuilt after the reservoir was full, and he resented even the temporary necessity of using the longer, rougher road to Larkin City, through Willow Cañon.

"Well," said Jack at last, "if you are Peter Wist's daughter, I'm afraid you will think of me as an enemy."

"How could I," she asked simply, "after you have been a Good Samaritan to me?"

"But I am one of the men down there at the dam."

"I know." She smiled again gravely. "There are worse things than the dam, but the people up here are slow to see the value of what is new. They dread the uncertainty of change."

A trout leaped in a pool ten feet away from them. She raised her left hand to urge his silence, then, taking up the rod, made a snap-cast. The fly soared delicately to the water, and, under the girl's deft manipulation, seemed to be struggling to wing its way upward again. But the trout did not strike, and she drew in the line.

"My fly-book," she whispered. "It must have slipped from my pocket."

Jack peered about until he found it, close to the serried edge of the alfalfa. She opened it, and taking out a "Parmachenee Belle," looped it at the end of the leader, removing the "Professor," which she had been using.

"Isn't the 'Belle' rather bright for this country?" asked Jack.

"The larger trout seem to take it," she answered. And, indeed, the fleck of red and white had not struck the water before the misled fish leaped and caught it.

"A beauty!" exclaimed Jack.

The color had returned to the girl's cheeks. Gently, coaxingly, but firmly, she brought the trout toward the bank. Jack, meantime, hunted about until he found the landing net.

But the fish was not so easily to be mastered. Twice he fought his way back to the depths of the pool—now rushing, now sulking near the bottom, and it was fully ten minutes before Jack got the net under it and scooped it up to the bank, where it lay flopping in the meshes.

"Kill it, please," she said; and Jack, with his pocket-knife, stabbed deeply into the back of the head.

"It is at least twenty inches," he said, estimating it with his eye. "Better carry it in the net."

She nodded, and began to take her rod apart.

"Do you feel able to walk?" he asked.

"Quite. My head aches, of course. That is to be expected; but it will wear away. Now—well, I will take your arm as far as the road."

He helped her to her feet. She seemed a little shaky, but resolute. They walked slowly to the bridge. Jack's mustang was grazing near by. He went and caught it, and led it back to her.

"You will ride," he said.

She thanked him. "But the fish!"

she exclaimed. "That is supper; and I have only one other."

So he gave her the bridle, and went back to get the fish. When he returned she was seated on the pony, and he walked silently beside the animal, which she held down to a slow pace.

"Aren't you going to say anything?" she asked.

He looked up at her, and found her smile pleasantly quizzical. "I am glad I came to you when I did, valkyr," he remarked.

She did not wound him by pointing out that if he had not come, she would undoubtedly have recovered consciousness and made her way home alone. Instead, she said simply:

"So am I. You have been very kind." Then, she, too, relapsed strangely into silence.

The house which they approached was a homely, compact structure, with plentiful evidence of thrift and industry in the neatness of the door-yard and the absence of rust on the farm machinery under the sheds. She halted the pony and slipped to the ground.

"This is my home," she said. "Now, if you will just lay the fish there; and, thank you again for being a cowboy *Siegfried.*" Perhaps it was the realization of what the allusion might mean to him that made her blush!

"If," began Jack, twirling his hat in his hand, "if I were to ride this way to-morrow, do you think that you would be fishing that same stream?"

"It is possible," she smiled; "but I never know what I may be busy about to-morrow. Good-by."

He waited until she had disappeared into the house, then slowly mounted and rode at a walk down to the cañon. Again and again his mind reviewed the incidents of the hour, while his imagination interrupted his thoughts with eager questionings and surmises.

Such a vision in such a place! A very *Brunhild*, with a womanyq tenderness more than the valkyr's.

And then he exclaimed aloud so suddenly that the pony, misunderstanding, broke into a lope. This girl, Thekla Wist, daughter of Peter Wist, the Norwegian farmer, had spoken with an English as pure as his own.

She had been fishing the stream with tackle that must have been bought in an Eastern shop, and she had handled the rod like an experienced fly-fisherman. She had capped his allusions to mythology—not so surprising, perhaps, since the mythology was Norse; but she had talked to him with a social ease which surely could not have been acquired in the homes of immigrant farmers.

How could all this be, inasmuch as she was Thekla Wist? Vainly he questioned himself for a solution of the mystery. He could not but believe that she was what she had claimed to be; and his only conclusion was that he would ride again to "Sweden" on the following day in the hope of seeing her.

The upper cañon narrowed toward the dam site, and he left the road for the bridle-path that led above the dam. Work had ceased for the day. Already the sun had sunk below the mountains. The men would be at supper now, and Larry and Mrs. Larry would be looking for him at the shack.

He wondered how things had gone with Larry during the afternoon; whether he had made the alterations on a second copy of the blue-print. Thomas Briggs must be well on his way to Salt Lake by this time; and Garth, what would Garth be doing?

Madden was not in the corral, so Jack himself unsaddled the pony. Then he walked back to the beginning of the path that led up to the shack, passing on the way the long tent in which the workmen were at supper.

Fragments of their rough talk floated out to him, and there was a steady clatter of knives on tin plates. A little farther along he noticed a solitary figure seated on a log near the power-house, and looking toward the dam. It was Bill Murdock. No other man in the camp had such broad, stooping shoulders.

Jack hesitated. He would give much to know Murdock's thoughts. He stepped quietly forward, and when he was near the log he said suddenly:

"Hallo, Bill!"

Murdock leaped to his feet with an oath; then, recognizing Jack, slowly resumed his seat. "You gave me a start," he said.

"Did I?" Jack inquired cheerfully.

seating himself. "I didn't know your thoughts were so far away."

Murdock made no answer. Whatever the problem in his brain, he was not disposed to talk about it. His dull blue eyes were again closely fixed on the wall of the dam.

Slowly Jack took his memorandum-book from his pocket, and slipped out the piece of charred blue-print. He fixed his eyes on it, and waited for Murdock to notice it, but the contractor still stared moodily away.

At last Jack began to make the paper crackle in his fingers. He was conscious that Murdock was turning his head; and then, suddenly, the contractor shot out his right hand, as though to seize the incriminating piece of the print.

But before he touched it he realized how greatly such an action might betray him, and drew his hand back, not knowing that he had already verified Jack's suspicions. When Jack glanced at him the contractor was again looking in the direction of the dam, but his eyes were partly shut, in an expression of cunning.

"Well," remarked Jack, "I guess I'll go get my supper." He arose, slipped the bit of paper into his pocket, stretched himself, and began his climb up to the shack.

He was now convinced that Bill Murdock had destroyed the blue-print; and that being so, its destruction could have but one purpose, the delaying of the work. Moreover, the fact, obvious to his eyes, that Thomas Briggs had former acquaintance with Murdock, and that they had tried to conceal this acquaintance was evidence of some collusion between the contractor and the capitalist. Jack felt that the situation was rapidly rounding out.

He wondered, however, whether he had not made a mistake in letting him see the bit of blue paper. The contractor might realize, now, that Jack was suspicious, and he would be on his guard.

It would have been better to turn the matter aside nonchalantly; to act as though he had just picked the paper up, and was idly curious about it; and then to toss it away, as if it were of no consequence, instead of returning it to his pocket with such marked care.

However, the mistake could not be corrected. If Murdock was now on guard, he himself would simply have to be more watchful of Murdock.

More and more, Jack was determined to say as little as possible to Larry about the evidence of a conspiracy, for Larry had his hands full with the details of the work itself. Worry would hinder him, and it was fortunate, perhaps, that he had dismissed the suspicions which sprang up in him at the meeting with Thomas Briggs. All of Larry's energy must be devoted to the task of seeing to it that the plant was completed on time.

It would be difficult, Jack knew, to defeat single-handed the machinations of Briggs and Garth and Murdock. He was not experienced in the tricks that they were likely to employ; but the difficulties of his undertaking he found stimulating rather than discouraging.

Dimly he realized that he had needed a spur for his abilities—some stimulus of combat to arouse him from his lazy indifference, and he was genuinely elated by the prospect of matching his energies against the schemes of the others.

His own money had almost all been built into this dam and power-house and pipe-line. If it were lost to him, he would soon be as poor as the humblest Irish workman on the job—poorer, in fact, since he had no trade.

But the money, he discovered, was a small part of his concern. Pride was more—pride in himself, now for the first time in his life devoted to a serious, constructive piece of work; and pride in Larry, whose engineering talent had made this plant possible. For, like himself, Larry had staked everything on success.

Now that he was convinced of the general intention of Briggs and his allies, he was prepared to consider more definitely the methods they were likely to employ to carry out that purpose. An accumulation of such delays as the one caused by the destruction of the blue-print? Yes; but such delays could not now be made very frequent, since he was known by Murdock to be watchful.

Moreover, there was always the chance that Larry would find ingenious ways of getting things done, circumventing Murdock's efforts. Delays of that kind could be but partially effective, and they

would not be the main reliance of Thomas Briggs.

A strike? If Murdock's men were to walk out just before the work was completed, the result would be fatal to Jack and Larry's interests. There was no strike clause in the contract with Murdock, he remembered, for a strike in such a place as this seemed so improbable that Murdock apparently had been willing to waive all protection for himself in that regard.

Then, since there was no strike clause in the contract, Murdock's failure to complete the work on account of a strike would leave him liable to the amount of [illegible]. It was a heavy bond, too; and flashed upon Jack that Thomas Briggs could well afford to pay it, if he could get control of the property by foreclosure.

This thought put an idea in his head. After supper, while Mrs. Larry was attempting to make the imperturbable Wing Fah understand her wishes for the following day, Larry and he sat, puffing at their pipes, on the bench in front of the shack.

The mountains loomed blackly all around them, and in the gulf below faint, luminous patches indicated the location of the tents of the workmen. Up to the shack came occasional snatches of song, above the heavy diapason of the Beardwater, tumbling over its boulders.

"Larry," said Jack, scratching a match to relight his pipe, "the masonry work on the dam is the remaining part of the work that requires the least skilled labor, isn't it?"

"Yes," said Jack.

And the completion of the sluices and the pipe-line takes skill?"

"Yes; and the installation of the machinery!"

"Well—" Jack hesitated. "I want to make a suggestion. You know our suspicions about Briggs. Of course, there may be nothing in it; but just to be on the safe side, to minimize the difficulties that would come if Bill Murdock's men should go on strike toward [illegible]"

"Strike?"

"Always possible, isn't it?"

"Hardly; not up here!"

"But it might happen. You never can tell for sure what notion will get into the heads of a gang of men. Just to be safe, why don't you make Murdock put on the pipe-line all the men now at the dam? Then, if anything should happen, the pipe would be done, and only the easy masonry work left."

Larry seemed dubious.

"It won't take long to finish the pipe, will it?" inquired Jack.

"About ten days, if we put all the men on it," replied Larry after a swift mental estimate.

"Then, do it!"

Larry argued that it was better to carry all parts of the work along together, sending for extra men toward the last, if it should be necessary. But Jack was pleasantly persistent, and at last Larry said:

"Well, I'll try it for a couple of days and see how we get along. Meantime the machinery men, who have nothing to do with Murdock, as you know, will go on with their work. Still, I shall hate not to see the dam rise a little farther every day, Jack."

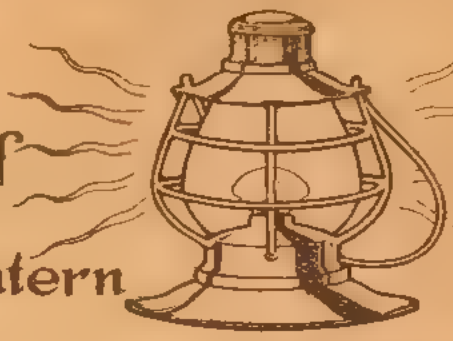
"So shall I," said Jack; "but I believe the precaution is wise."

Could they have foreseen events, they would have realized that wise precaution, strength of will, and strength of arm would scarce avail them against the wily subtlety of their secret foe and the crude brutality of his tools.

(To be continued.)

WHAT'S THE ANSWER?

By the Light of the Lantern



Questions Answered for Railroad Men

ASK US!

HOW is the coil of an electric magnet affected by electricity when it is wrapped with insulated wire and has both electrical connections?

(2) What is the electro motive force used in wireless telegraphy, and how many ohms resistance are the magnets wound?

L. E., Notch, Mo.

(1) The core is magnetized if the current is flowing through the windings about the core.

(2) The EMF in wireless telegraphy can be anything from 4 to 2200 volts, depending upon the energy required, *i.e.*, the length of spark, and this in turn is determined by the distance from which you wish to transmit the message. With the De Forest system, one generally uses 2200 AC, and steps it down to 110. For small laboratory use, an induction coil can be made that will send messages 400 or 500 feet, operating off a few cells of batteries.

O. M. L., Larwill, Indiana.—The United Wireless Telegraph Company, 17 Broadway, New York, New York, should be in the best position to advise in regard to the opportunities for operators in that service. This company operates seventy-two land stations, and has equipped one hundred and seventy-one vessels of fifty-one steamship lines. Familiarity with the instruments would be an essential requirement, as at sea, at least, the maintenance of these parts devolves upon the operator. The pay, so far as we can learn, is about the same on land as railroad and commercial operators receive, while at sea it is from $40 to $50 per month and found. We have previously explained the slight variation in the code between that of Morse, and have never heard that a Morse operator had any great difficulty in qualifying for the wireless service.

THE INTERSTATE COMMERCE COMMISSION passed two bills—one that no private car company's cars could be run, and the other that railroads could not deal in coal. When do these take effect?

(2) Has the Delaware, Lackawanna and Western Railroad started to build through to Chicago? If not, when is it going to?

(3) Is there any law regulating the length of time an engineer can work? If so, what is it?

(4) What is the price of a D., L. and W. R. R. Young Men's Christian Association ticket? Can persons who are not railroaders join the Railroad Y. M. C. A.?

H. A. O., Orange, N. J.

(1) Section 1, of the Act to Regulate Commerce, next to the last paragraph reads as follows: "From and after May 1, 1908, it shall be unlawful for any railroad company to transport from any State, Territory, or the

To insure reply, queries addressed to this Department should bear the full name and address of the writer. See note in "On the Editorial Carpet."

District of Columbia, to any other State, Territory, or the District of Columbia, or to any foreign country, any article or commodity, other than timber and the manufactured products thereof, manufactured, mined, or produced by it, or under its authority, or which it may own in whole, or in part, or in which it may have any interest direct or indirect except such articles or commodities as may be necessary and intended for its use in the conduct of its business as a common carrier."

The Supreme Court has recently rendered an opinion sustaining the constitutionality of this law. In regard to the matter of private cars the Act to regulate commerce defines the powers of the Interstate Commerce Commission. In the exercise of such powers the law provides that if the owner of property transported under this act, directly or indirectly, renders any service connected with such transportation, or furnishes any instrumentality used therein, the charge and allowance therefor shall be no more than is just and reasonable, etc. [illegible] payment or allowance of [illegible] table amount for the use of private cars would be in the nature of an advantage and result in unlawful discrimination.

(2) At the present time the Delaware, Lackawanna and Western Railroad is not contemplating an extension of line from Buffalo to Chicago.

(3) From the Act to promote the safety of employees and travelers on railroads by limiting the hours of service of employees thereon, we quote the following:

"That it shall be unlawful for any common carrier, its officers or agents, subject to this act to require or permit any employee subject to this act to be or remain on duty for a longer period than sixteen consecutive hours, and whenever any such employee of such common carrier shall have been continuously on duty for sixteen hours he shall be relieved and not required or permitted again to go on duty until he has had at least ten consecutive hours off duty; and no such employee who has been on duty sixteen hours in the aggregate in any twenty-four-hour period shall be required or permitted to continue or again go on duty without having had at least eight consecutive hours off duty."

This section covers the service period of engineers on which you desire information.

(4) You had better take this matter up with Mr. George A. Cullen, general passenger agent of the Delaware, Lackawanna and Western, at 90 West Street, New York, New York, as we are in some doubt regarding what you mean. We opine that persons who are not railroaders may secure membership in that branch of the Y. M. C. A. to which you refer.

J. A. G., South Weymouth, Massachusetts; M. B., Baltimore, Maryland; S. J. C., Stroudsburg, Pennsylvania, and W. M. C., Fostoria, Ohio.—See reply to question No. 3. of "H. A. O."

J. M., Dora, Arkansas.—The best thing we can advise you to do with the wire where you desire connection, is let it severely alone. The object, or one of the objects of a quaded wire, as you know, is to restrict the number of instruments. It is a very delicate arrangement at the best, and by cutting in with a single instrument you disturb the balance of the quaded wire, and certainly interfere with its service.

G. E. L., Reading, Pennsylvania.—You might address Fairbanks, Morse & Co., Chicago, Illinois, who will no doubt be able and pleased to put you on the track of what you want.

W. R. Portsmouth, Virginia.—We do not believe that the situation for operators in the West is any better, in the long run, than the East. Similar inquiries have been referred by us to many operators in the West, and this at least is the consensus of opinion

PLEASE give the names of the oldest railroads in the United States.

J. L. O., Macon, Ga

Common report has it that the first railway line in the United States was a short stretch of track on Beacon Street, Boston, Massachusetts, in 1807. The first line of which there is undisputable record was one three-quarters of a mile long, constructed by Thomas Dieper, in Delaware County, Pennsylvania, in 1809.

This was followed by several tram-roads of similar character, the most important of which was the one from Quincy to Newport, Massachusetts, three miles long, built in 1827. The remains of this road can still be seen on the West Quincy branch of the New York, New Haven and Hartford Railroad, but a short distance outside of the city of Boston. The first railroad in the United States designed and built to be operated by steam locomotives, was the South Carolina, in 1830.

Between the years 1828 and 1833, the present elaborate system of railroad com-

munication in the United States may be said to have been started by the commencement of the Baltimore and Ohio, the Baltimore and Susquehanna, the Camden and Amboy, the Newcastle and Frenchtown, the Hudson and Mohawk, the Charleston and Augusta, the Boston and Providence, the Boston and Lowell, and others.

If the Baltimore and Ohio be excepted from the above list, it will be seen that there was little foresight of future great connecting systems. The Baltimore and Ohio, and at a later date, the Pennsylvania roads, connected the Ohio River with Baltimore and Philadelphia, while the Mobile and Ohio connected that river with the Gulf; hence, these may be called the first through lines.

Some of the above names of old roads can scarcely be recognized now, but the Baltimore and Susquehanna and Camden and Amboy are now in the Pennsylvania group; the Hudson and Mohawk is in the New York Central lines; the Boston and Providence has been absorbed by the New York, New Haven and Hartford, and the Boston and Maine system has the Boston and Lowell.

S. V. M., Corry, Pennsylvania.—You render your injector problem fairly easy for your own solution in the statement that other injectors will work all right on the same line. This being the case the trouble must logically be in the instrument itself.

The trouble, without this information, would appear to be at first glance insufficient lift of the check-valve, but this must be dismissed in view that other injectors which have been tried were not affected. Have you carefully examined the steam ram-seat for cuts or poor seat, and are you sure that the injector is receiving full boiler pressure at steam-valve?

We are very much interested in all injector troubles, but must admit unfamiliarity with the make referred to by you. Otherwise, or had it been one of the types found on locomotives, we could be more definite. Your letter has been referred to one of the large manufacturers of injectors, and we will further advise you.

R. C. B., Pomona, California. — The proper person to approach on the subject of locks for freight-car doors, or, in fact, any matter relating to car construction, would be the master car-builder of the railroad. His name can be secured from the station or ticket agent at any point on the road which you may have under consideration. Had you mentioned the name of any particular road we could of course have given you the information here.

R. F. B. C., Gatun, Republic of Panama. —We have no knowledge of the firm which you mention, and would advise that you refer the inquiry to the *Railroad Age Gazette*, New York or Chicago, which is in close touch with all building operations.

R. S. D., Hoboken, New Jersey.—Mr. L. H. Raymond is master mechanic at Highbridge, New York, on the New York Central lines, and is in a position to consider your application. Less than seventeen years is too young for a night position in any roundhouse, in our opinion.

A CLAIMS that August Kauffman was chief engineer of the Pittsburgh Junction Railway, comprising one of the most difficult pieces of engineering in the United States, and with a mile-long tunnel under the city of Pittsburgh. "B" says that Kauffman did not build it. Who was the expert engineer who did build this work as chief engineer, and where can he be addressed? S. R., Philadelphia, Pa.

The chief engineer of the Pittsburgh Junction Railroad was the late H. A. Schwanecke, whose home address was Marshall, Illinois. Mr. Schwanecke died about three months ago. He was also chief engineer of the Pittsburgh, Binghamton and Eastern Railroad. From what we can learn, Mr. Gustave Kauffman was not connected with the Pittsburgh Junction Railroad, but did have charge of the construction work on the Pittsburgh and Western, building connecting link between Parker and Foxburg, Northern division.

H. M., Seattle, Washington.—We can do no more than refer you to Mr. A. Stewart, assistant chief engineer of the Great Northern, and Mr. A. Herider, superintendent of bridges and buildings, Northern Pacific Railroad. These officials have offices in Seattle. Mr. E. J. Pearson, chief engineer, with office in same city, is in charge of that work on the Chicago, Milwaukee and St. Paul Railway, of Washington.

X. Y. Z., Casey, Illinois.—The requirements for an applicant looking for a position as Pullman conductor are set forth in the application blank which you can secure from any of that company's dis-

trict superintendents. You might address Mr. C. C. Cox, who holds that position in Chicago, Illinois.

A. A. J., Warrensburg, Missouri.—The time-honored cross-head question has been thrashed over many times in this department of the THE RAILROAD MAN'S MAGAZINE, and, singularly enough, your view that the cross-head remains stationary has been gravely advocated by many good mechanics, notwithstanding the evident fallacy.

The cross-head of a locomotive certainly moves from the front to the back end of the guides while the wheel, to which it is to all intent and purpose connected through the medium of the rods, is making a half turn, and returns from the back to the front end of the guides, and to its original position, while the wheel is making the other half-turn to complete the revolution.

Bear in mind that the progressive motion of the locomotive on the rails is entirely dependent on this action of the cross-head. If any proof is necessary that this action exists, we might call your attention to the fact that the valves are so adjusted as to admit an equal quantity of steam at each end of the cylinder as needed, and the fact that four equally spaced exhausts occur with each revolution of the driving-wheels affords satisfactory evidence that each cross-head has made a round trip through its respective set of guide-bars, and that the steam has fulfilled its mission in each end of the cylinder.

WHAT is meant by the "draft appliances" of a locomotive?

C. B., Olean, N. Y.

What are known as the draft appliances of a locomotive include the dampers, the ash-pan, the grates, the appliances inside the smoke-box, and the smoke-stack. The ash-pan and grate should be so constructed that the air will pass to the fire with as little obstruction as possible, and the fire gases should pass uniformly through the different rows of tubes. It is to regulate this flow of the gases through the tubes that a lift-pipe, or diaphragm, is placed in the smoke-box. Without these the tendency of the unrestrained gases is to pass through the upper rows of tubes, losing the use for heating surface of the lower tubes, and permitting them to choke up with cinders and soot.

W. J. S., Brooklyn, N. Y.—One railroad is practically as good as another to learn to run an engine on. Often on the smaller roads promotion is more rapid. There is not any great discrepancy in the pay of engineers in any section, as on almost all lines schedules of agreement exist between the engineers and the companies by which the latter are bound, and these schedules regulate the rate of pay. You are too young to have your application for a fireman favorably considered.

It would be our advice to try to secure employment around the shops, preferably the roundhouse, as a helper, until you become of age, or until State laws permit your service as fireman. The master mechanic can much better advise you in regard to what course you should follow. Mr. J. B. Ward, road foreman of engines Long Island Railroad, and Mr. J. J. Dewe.., master mechanic, Erie Railroad, Jersey City New Jersey, will handle your application so far as those lines are concerned.

F. C. S., Cincinnati, Ohio.—The expansion of any metal is uniform in all directions, but in the case of the rail you mention it is more noticeable in the length because this is tremendously in excess of any other dimension. The expansion per section is so slight that it can be scarcely measured.

WHEN a train that carries mail is detained, whether avoidable or unavoidable, is the company charged so much an hour? If so, what is the amount per hour charged?

(2) What was the first narrow-gage road that was run? Why is it that the gage of the track then was not as it is now? Was it on account of the expense of construction? W. H. R., Freeport, Ill.

(1) The practise of fining railroads for failure to maintain their schedules, which was in vogue heretofore, has been discontinued, becoming effective July 1, 1908, the Postmaster-General ruling that inasmuch as Congress had omitted this provision from the current appropriation act, and it was applicable only to the fiscal year to which the act applied, it should be discontinued. The only fines are for neglect to forward mail, or other similar violations of the postal laws.

(2) Statistics are not entirely clear regarding the exact width of the first narrow-gage track in this country; that is, the gage narrower than the present four feet eight and one-half-inch standard. It is said that the Quincy Granite road, built in 1827, was forty-four inches wide; some say fifty-two inches.

At one time in the United States there

were the different widths of track, from four feet six inches to six feet, and the advantage of uniformity in track forced itself ultimately to the attention of railway management, to the triumph of the present standard. This was the same reason which resulted in this standard in England; not its mechanical superiority to any other gage, but in view of the extent of roads in operation with that width of gage.

J. H. S., Chicago, Illinois.—Our reply to "C. W. L.," in June number that the Lake Shore and Michigan Southern were running on the left-hand track was correct when written, inasmuch that the change from left-hand to right-hand running was not made until July 1, 1909, some time after the answer to the question had been prepared and in type.

S. F., Fort Logan, Colorado.—Supplementing information given in August number relative to extra long rails, the following, which we have secured since that issue, may be of interest to you. The Boston and Worcester Electric Railway track is, or was, laid with sixty-foot rails, eighty pounds to the yard. This road was built and began operation July 1, 1903. The Texas Midland Railroad used sixty-foot rails, and we have been advised that they have some few on the line at present. These rails were not considered desirable and they were accordingly sawed in half. Some ten or twelve years ago the Pennsylvania lines also experimented with rails of that length.

C. B., Waldoboro, Maine.—The easiest way to get this information at first hand would be to write the United Fruit Company direct, as the clipping enclosed with your letter states that they own the line in question. We have no record of it here. Do not place dependence to any great extent on the alluring prospects held out for railroading in foreign lands, and in the tropics least of all.

You have noticed this advice frequently in the Lantern Department, no doubt, and we trust that it has at least been instrumental in causing thorough inquiry to be made before any contract is signed. To analyze the clipping you sent develops the conclusion that it looks like a fake. These roads in the tropics prefer to develop the native labor in all capacities, even to running the engines and doing the important shop work, because the natives are acclimated, do not become homesick, and will work for about one-quarter of what you would expect.

There may be a few Americans, of course, to balance this element, but it is absurd to assume that the entire personnel of the road will be whites—"at high salaries in gold." The clipping may set forth the facts, and, if so, the general manager of the line is entitled to sincere sympathy. We cannot think of any stiffer proposition than the effort to keep the American labor contented, and from decamping in force on each payday.

WHAT is the difference between a compound and a simple locomotive?

(2) What is the largest locomotive in the world?

(3) The highest paid engineer running a locomotive in the United States?

(4) The fastest speed which could be kept up by a very high speed locomotive for half a mile under the best conditions?

(5) What is the highest price ever paid for a locomotive?

(6) What will be the weight and length of the new articulated locomotive which is being built for the Santa Fe?

(7) What other illustrated railroad technical magazine besides those which you frequently mention in the "Lantern" department?

G. D., Montreal, Que

(1) The simple expansion locomotive, which is the prevailing type, uses the steam once in each of the two cylinders, thereupon exhausting it to the atmosphere through the smoke-stack. In the compound locomotive steam enters first the high-pressure cylinder, and after doing its work on the piston is exhausted at reduced pressure into the low-pressure cylinder and thus made to perform more work before being finally ejected to the atmosphere. Compound locomotives made their advent about twenty years ago. The theory of re-expansion of the steam, which is the basic principle of the compound type, is correct, and some roads invested heavily in them. It was found, however, after many years of experimenting that the complication of parts which is the inevitable result of compounding, and the ensuing excessive cost of maintenance, more than offset any economy in fuel, and the type began gradually to disappear. There is a very small proportion left compared with ten years ago.

The compound types then were the two-cylinder and four-cylinder: in the former the steam exhausting from the high pressure cylinder on the left side across the smoke-box to the low-pressure cylinder on the right side, and thence passing to the stack. In the latter type a low-pressure cylinder was placed in immediately below the high-pressure on each side, or above it in the instance of a freight-engine.

Later types are the balanced compound, in which the high-pressure cylinders are arranged to be between the frames and drive a cranked axle, while the low-pressure are outside the frames and connected to the wheels in the usual manner through the medium of the piston and rod, cross-head, main rod and crank-pins. The articulated compound is a flexible engine pivoted in the center with the high pressure cylinders driving the rear engine, and the exhaust steam from these cylinders filling the low-pressure cylinders ahead which drive the forward engine. Quite a few of these have been constructed of late for service on heavy mountain grade

(2) The largest locomotive in the world, in the sense you view it, is the new Mallet articulated compound built at the Baldwin Locomotive Works, this year, for the Southern Pacific Company. The total weight of this engine is 425,900 pounds, of which 394,150 pounds is on the driving wheels. The total length of the engine is 56 feet 7 inches, and of the engine and tender, 83 feet 6 inches.

The diameter of the high-pressure cylinders is 26 inches, and that of the low-pressure, 40 inches. The total heating surface is 6,393 feet, and the steam-pressure 200 pounds per square inch.

The Erie Railroad articulated compounds, which were the largest up to the construction of the above engine, have a less total weight, viz.: 410,000 pounds; but, as these engines have no truck in front or rear, all of this weight is on the drivers, against 394,150 pounds for the Southern Pacific engine. In consequence, the tractive effort of the Erie engine is 94,800 pounds, exceeding slightly that of the Southern Pacific engine, which is 94,640 pounds.

(3) It is difficult to answer this question with any more than approximate correctness. Engineers are paid by the month, as a rule, and the size of the check depends on the miles which have been made since last pay-day. We know a great many engineers on many roads, but the highest regular monthly pay is $179.45, and this is on a double-crewed job where each man makes fifteen round trips per month

(4) This would have to be determined by a test run. It is claimed that on one occasion, on the Atlantic City Railroad, 8 miles was run in 4.8 minutes, considerably over 100 miles an hour. So many elements enter into the problem, viz., weight of train, weather, condition of track, etc., etc., that to answer you any other way would be of little value. One mile in 32 seconds is the best authentic record, made several years ago by the Empire State Express.

7 R R

(5) We have heard, but not authoritatively, that the three Erie articulated compounds mentioned above cost $75,000. This $25,000 per engine is a very high figure, but may not be necessarily the highest ever paid. Had a single engine of that type been purchased the price might have been $30,000.

(6) Had no information of articulated compound being built for the Santa Fe at this writing, and think that you must have it confused with the Southern Pacific compound described in answer to your first question.

(7) The monthly magazine issued by the Brotherhood of Locomotive Engineers, also that by the Brotherhood of Locomotive Firemen and Enginmen, are well illustrated and valuable publications.

W. E. W., Dallas, Texas.—It would be preferable, in our opinion, to enter a railroad office as a student operator. Address Mr. S. K. Bullard, superintendent of telegraph, Sedalia, Missouri, and if he does not handle such matters he will no doubt refer your application to the proper official

W. K., New York, N. Y.—You had better address the general manager of each line, viz., Mr. W. W. Atterbury, Pennsylvania Railroad, Philadelphia, Pennsylvania; or Mr. A. H. Smith, vice president and general manager, New York Central and Hudson River Railroad, New York, New York.

J. B. J., Oneonta, New York.—Your letter is very indefinite regarding the position which you desire in railroad service, but we would take the train service to be intended. The principal railroads in Virginia are the Southern. T. P. Weston and J. M. Hudspeth, trainmasters, at Alexandria, Virginia, and Richmond, Virginia, respectively; Seaboard Air Line, S. B. Zartman, trainmaster, Richmond, Virginia; Atlantic Coast Line, C. M. Cobb and G. B. McClellan, trainmasters, at Pinners Point, Virginia, and Richmond, Virginia, respectively; Richmond, Fredericksburg and Potomac, E. K. Grady, trainmaster, Richmond, Virginia. The wages paid brakemen, flagmen, and conductors are about on a par with those in the section where you reside, and these rates you can readily secure by inquiring of some trainman in your vicinity.

J. B. P., Brooklyn, New York.—On the New Haven road the road foremen of engines generally consider the application of

firemen and recommend or disapprove of the same to the division master mechanic. The list is too long for this space. J. J. McCabe is general road foreman of engines, New Haven, Connecticut. In regard to the Long Island Railroad see reply to "W. J. S." this issue.

HOW long does a fireman have to fire before he can join the union?

B. C. Y., Van Horn, Texas.

If you refer to the organization known as the Brotherhood of Locomotive Firemen and Enginemen it is our impression that applications for membership will be considered after a man has qualified for and entered upon his duties as a fireman. You understand, of course, that membership depends also and to a very large extent upon sobriety and morality, these qualifications being esteemed as highly in this organization as in the older body of engineers.

G. [illegible] Hammond, Indiana.—The following appointments have been recently made in the mechanical department of the Chicago, Milwaukee and Puget Sound Railway Company: M. M. Maine, general master mechanic, Deer Lodge, Montana; A. V. Manchester, district master mechanic, Miles City, Montana, and Frank Rusch, district master mechanic, Seattle, Washington.

C. M. U., Parsons, Kansas.—(1) The road mentioned is now embodied in the Chicago, Rock Island and Pacific.

(2-3) Read the "Making of an Engineer" in the August number of the 1907 RAILROAD MAN'S MAGAZINE.

(4) Yard and road service is not divided on all railroads, but on some roads it is. This is fully explained in answer to "W. A. L." in the August, 1909, issue.

DOES a passenger brakeman have to be twenty-one years old before he can work in that position?

(2) Does he have to have some experience in railroad-yards or roundhouses before he can secure a position?

(3) Where can a set of rules be obtained?

L. R., Janesville, Wis.

(1) This is generally the minimum age for an applicant in that position.

(2) See reply to "B. R. T." in August number. On the Pennsylvania Railroad, however, passenger brakemen become baggage-masters, and are promoted from that position to passenger conductors. On that line passenger conductors are frequently taken from passenger brakemen and are seldom "made" from freight conductors. On the Erie Railroad, and many others, the procedure is as outlined in the answer to "B. R. T." above referred to. Experience is not necessary and largely not required to enter on the duties of passenger brakeman.

(3) These would be hard to secure, as they are issued by the railroads to their employees only. These books must be returned when a man leaves the service before he receives his time.

H. L. J., Charleston, South Carolina.—The signal engineers on the roads you mention are as follows: Western Pacific, operating department not fully organized; Union Pacific, J. C. Young, Omaha, Nebraska; Atchison, Topeka and Santa Fe, G. R. Cowherd, Newton, Kansas; H. K. Ferguson, La Junta, Colorado; H. Hanson, Cleburne, Texas; H. Hobson, Tokepa, Kansas, and P. B. Hyde, Los Angeles, California; Southern Pacific, W. W. Slater, San Francisco, California; Chicago and Northwestern, J. A. Peabody, Chicago, Illinois.

W. H. P., Tchula (?), Mississippi.—The country is flooded with nut-locks of every conceivable description, and the large majority of these are adequate for the purpose intended. For this reason it would be rather difficult to secure a patent unless your device is absolutely original. A sketch is all that is required at the Patent Office, but in such a small affair as a bolt would suggest that you prepare a model. Any railroad official is glad to look at such a device and advise you of its merits, if any.

C. H., Gadsden, Alabama.—The Self-Help Department of THE RAILROAD MAN'S MAGAZINE for March, April, and May, this year, contains articles fully describing track operations, rates of pay, and all information which you seek.

A. M., Arizona.—In States where "Jim Crow" law prevails the same amount of baggage to be transported free is allowed as in the instance of the white passengers.

G. F. K., Emmetsburg, Iowa.—Sorry to discourage, but you are too old to start railroading in any capacity except possibly at laboring work, which, of course, in view of your qualifications, is not to be considered. It would be the height of absurdity for you to abandon your present post

tion for any such undertaking. In the September number of the magazine you will note reply to a correspondent who asked for advice on exactly the same lines, and we can add nothing to what we said on that occasion.

B. A., Childress, Texas.—Please note reply to "J. R." in the August, 1909, number.

HOW many gallons of water do engines in most common use hold?

(2) How can I tell mathematically?

L. E. C., Denver, Col.

(1) Engine No. 1608, of the Northern Pacific Railroad, pulls a tender with a capacity of 10,000 gallons, which capacity is the greatest in the tabulated records of recent construction.

(2) We are in some doubt as to what you mean by this. The capacity of any tank can be readily computed when all dimensions are given, minus the slight reduction from the total due to interior bracing. Perhaps you would care to make this a little more clear and we will be pleased to advise.

B. [illegible] We don't think that the road you mention goes into the matter so deep as to require a man to remove his shoes for a height measurement. This latter is not a binding qualification at any rate for a brakeman. The inspector can tell by looking at him whether he is so short that attention would be attracted, and thus is enough.

M. D. W., Gleason, Tennessee.—For position as Pullman conductor apply to the nearest district superintendent of that company, who, in your instance, would be Mr. T. C. Olney, Chattanooga, Tennessee.

F. C. C., Riverside, California.—Address the postmaster in either of the two cities mentioned and you will receive full information in regard to the railway mail service, dates of examination, etc.

C. O., Canton, Ohio.—Referring to our answer to your question in the July Light of the Lantern, we failed to quote a rule for the measurement of switch frogs. The following, which has been submitted to us by a prominent civil engineer, is said to be that in general use for this purpose:

"The number of the frog is the quotient obtained by dividing the length, from the theoretical point to the heel, by the width across the heel, gage to gage. If the last distance be 1 foot, and the first measurement 8 feet, the frog is No. 8; if 6 feet it is No. 6. If it is required to find the angle of the frog, the tangent of one-half of the angle can be found by dividing one-half the width of the heel by the distance from the theoretical point of the frog to the center of the heel. The angle of the frog would be twice the angle corresponding to the above tangent."

C. T. R., Streator, Illinois.—You might address Mr. U. J. Fry, superintendent of telegraph, of the line mentioned, who is in a position to advise you regarding the prospects for operators in that territory. Organization on a working basis is now under way.

F. C. S., Sacramento, California.—The following officials, named Severance, appear in the official guide: C. E. Severance, roadmaster, St. Johnsbury and Lake Champlain Railroad, St. Johnsbury, Vermont; J. Severance, chief engineer, East Jordan and Southern Railroad, East Jordan, Michigan; K. J. Severance, vice-president and general manager, Keeseville, Ausable Chasm and Lake Champlain Railroad, Keeseville, New York.

WHAT is the largest engine in the world? Is it the 601 of the Chicago and Alton, or 2117 of the B. and O.?

C. P., Pittsburgh, Pa.

Neither of these. It is Southern Pacific No. 4000, described in answer to "G. D.," second question, this month.

HOW many hours is a towerman supposed to work who does not issue train-orders, and is this work controlled by law? J. C. B., Peoria, Ill.

That portion of the Act, Public No. 274, approved March 4, 1907, relative to the service of telephone and telegraph operators we quote for your information:

"*Provided*, That no operator, train-despatcher, or other employee who by the use of the telegraph or telephone despatches, reports, transmits, receives, or delivers orders pertaining to or affecting train movements shall be required or permitted to be or remain on duty for a longer period than nine hours in any twenty-four-hour period in all towers, offices, places and stations continuously operated night and day, nor for

a longer period than thirteen hours in all towers, offices, places, and stations operated only during the daytime, except in case of emergency, when the employees named in this proviso may be permitted to be and remain on duty for four additional hours in a twenty-four-hour period, on not exceeding three days in any week;

"*Provided further*, The Interstate Commerce Commission may after full hearing in a particular case and for good cause shown extend the period within which a common carrier shall comply with the provisions of this proviso as to such case." It would appear, therefore, that a towerman not engaged as defined above does not come within the scope of the Act.

H. V. L., Brooklyn, New York.—Read the "Making of an Engineer" in the August, 1907, number of THE RAILROAD MAN'S MAGAZINE. Have no fears in regard to the electric locomotive taking your job away should you decide to enter railroad service. They are running them, it is true, but the consensus of opinion as reflected in the reports from the various mechanical associations, implies that they have been an extremely expensive innovation. Doubt has even been expressed that they will ever encroach more on the steam locomotive than what the present situation implies.

IF a freight-train is on a side track for No. 85, and she comes with signals and no markers showing, and the second section arrives, can this freight leave without a 31 order, or flag its way?

P. S. M., Petersburg, Va.

It certainly cannot leave without authority, although this authority need not necessarily be 31 order. A message from the superintendent saying that the first section of No. 85 had passed would suffice. The fact that the first section passed without markers leaves a doubt as to them having the entire train, and this being the case whether second section had arrived or not the freight should have notification that the first section was intact. It is, of course, permissible to proceed by flagging ahead, as a flag annuls any order.

WHAT are the eye-tests a telegraph operator and station-agent have to pass? J. S. L., Toronto, Ont.

The practise of examining the eyes of operators and station-agents is not by any means universal, although it prevails to a considerable extent in the United States. The Erie Railroad might be mentioned as an example. The operators are examined with the same thoroughness accorded the trainmen, but station-agents whose duties do not bring them in active contact with the train service are exempt. The examination consists in reading from wall type and Dr. Williams's lantern, and the selection of colored worsteds. The exact procedure has often been described in this department. In the instance of these two positions the fact that the incumbent wears glasses need not disqualify, provided he can pass the test.

F. W. J., St. Louis, Missouri.—The question you ask does not permit of an answer in this department, as it involves free advertising; but if you will forward your full name and address, we shall be glad to give you a suggestion through the mail.

G. D. C., Miles City, Montana.—Write to the British consul at Chicago.

MARSHALL C. SMITH, Plattsburg, New York.—The description of the examinations for candidates for the train service in the article on that subject in the August number is strictly correct, so far as general conditions go. As was explained there are variations to be found in this as in every other particular of railroading. A passenger conductor whose distant vision was perfect would not be disqualified because he had to put on reading glasses to examine tickets, though he probably would find it impossible to get a new job. A pair of spectacles consists of lenses which are an aid to vision, while a pair of goggles has only plain glass. Dust or steam on them, therefore, would not so seriously handicap a man as dust on spectacles. If it did he could take them off and be able to see perfectly. Goggles are used only by engineers as a protection against the wind, and their use is not general. The article referred to the train service only, and did not include operators, despatchers, and agents.

(2) The age-limit is twenty-one years, as explained in the article.

(3) See July RAILROAD MAN'S MAGAZINE.

(4) A metal disk on a switch to indicate its position.

(5) General orders are addressed to all employees, or all of certain classes of employees. Special orders cover exceptional circumstances. Neither has anything to do with train orders.

(6) See July number.

(7) No difference.

Being a Boomer Brakeman.

BY HORACE HERR.

"BOOMER" or "stinger" or "wheel polisher"—perhaps it is all the same. Any old-time brakeman will know what is meant by any one of these three terms. They are taken from the good old lingo of the railroad. Each word has its special place in the railroad man's dictionary.

Perhaps "boomer" is the best known and most widely used; but Mr. Herr calls him a "stinger." In the bright lexicon of the railroad there is—But, what of that? Get acquainted with the hero of these yarns quickly. He's delivering the real goods.

I.—BREAKING INTO THE GAME.

Railroading Was Not His Choice of a Profession, but After Butting Against Fate for a Few Days, He Was Glad to Have a Great Future Thrust Upon Him.

NIX! Railroading was not my choice of a profession. Any young man who has dressed with a college education is apt to have ingrown vision when it comes to seeing anything heroic in the life of a switchman or a brakeman, and he's probably more expert at shuffling cardboards than cars.

But you know how it is when you have been riding the rough side of a bumper for a few consecutive days. That sort of thing is liable to leave a marked impression on your anatomy and impress you with an appreciation of the fact that a night's lodging and three squares a day is the reward of industry.

Then a fellow dismisses any petty-larceny grudge he may have entertained against work in general, and gets busy with the first job which "knocks unbidden" at the gate. If there is anything which brings home the satisfying dignity of toil, it's the first pay-day after six months on the bummer.

When I drifted West I wasn't really train-broke, although I was broke in every other sense of the word. I didn't know the difference between an air-hose and a Janney coupler; and, what is more, my ignorance wasn't keeping me awake nights. At that time I didn't know that those minor details were a qualification for a division superintendent, and I really did not anticipate the necessity of accepting anything below that position.

But when I got out there in Arizona, surrounded on three sides by red ants and sand, and on the fourth by sand and red ants, two thousand miles from my parental boarding-house, with an unsympathetic Chinese standing guard in the doorway of every bean garage, there was nothing to do but break into the game which has been worrying Harriman.

I wasn't specially qualified for a place, but there is a great satisfaction in knowing that your Christian and surname are known to the paymaster, and that once a month there will be a few pieces of the "taint" coming to you.

My railroad experience up to that time consisted of just thirty days for thirty dollars, doing a mechanical adding stunt in the paymaster's office of the old Memphis road, a position which I decided to leave after I found out that they had left my name off the pay-roll. Of course, that would hardly be considered a qualification for a full-fledged stinger on any road but a street-car line.

I Hit the Town.

But out there in Arizona, where a switchman blows in, draws a lantern and a meal-book, works three days and blows out without the formality of returning the lantern; where the heat is so intense that you keep looking around to see if the man with the tail, the horns, and the pitchfork is there, where the Chink won't stand you up for a "T-bone," where the only thing that makes a loud noise is an iron man from Uncle Sam's mint, it's work, or dry up and blow away, and, as I always was averse to a skinny anatomy, it was me to the toil

I and a stock-train arrived in the division point one morning. I dropped off at the high switch and went down to the water-tank and did a little wash up stunt, turned my collar inside out, and drifted into the main portion of the town. It was one of those beautiful Arizona towns, along the Arizona In and Out Road, with a dark-brown complexion which leads one to believe at first glance that one of those XXXX brand sand storms had taken sudden leave the day before and forgot something. On second glance you see a Wung Chung laundry sign, and you know you are in the right pew

After you have looked at it several times, you begin to love it, with one of those great, generous loves which grows greater and more generous in proportion to the distance. Some liberal gringo staked me to the price of a ham-and-egg menu, and after I had wrapped myself carefully around it, I was ready and really felt equal to the task of looking for a job.

Meets a Freckled Disposition.

The day before I broke into the quiet life of the division terminal, the natives had been treated to the excitement of a fire which destroyed the mechanical department offices, and the chief clerk was holding forth in a box car. I wandered over that way, determined to hit him for a job as wiper in the roundhouse.

I stepped into the car just as an Arizona zephyr deposited the southwest quarter of the southeast half of the north section of the Indian Reservation in my left optic, and for fully a minute after I got inside I was excavating the real estate, for I knew that in my present financial condition I couldn't waste any money paying taxes.

Over at the left of the car, with a brick-colored growth on his head, sat a young fellow who looked as if his disposition might be as freckled as his face. He was sitting on a barrel and was using a dry-goods box for a desk. He turned around, skilfully avoiding the tenpenny nail, and asked me what I wanted.

"A job," was my reply.

"Fireman?"

"Never fired anything more complicated than a gas-stove, but I'll take a shot at most anything this morning."

"Don't hire anything but experienced men," and the remarks felt good in the heat of the day, they had such a beautiful frosty ring to them.

Chalking Up "Brownies."

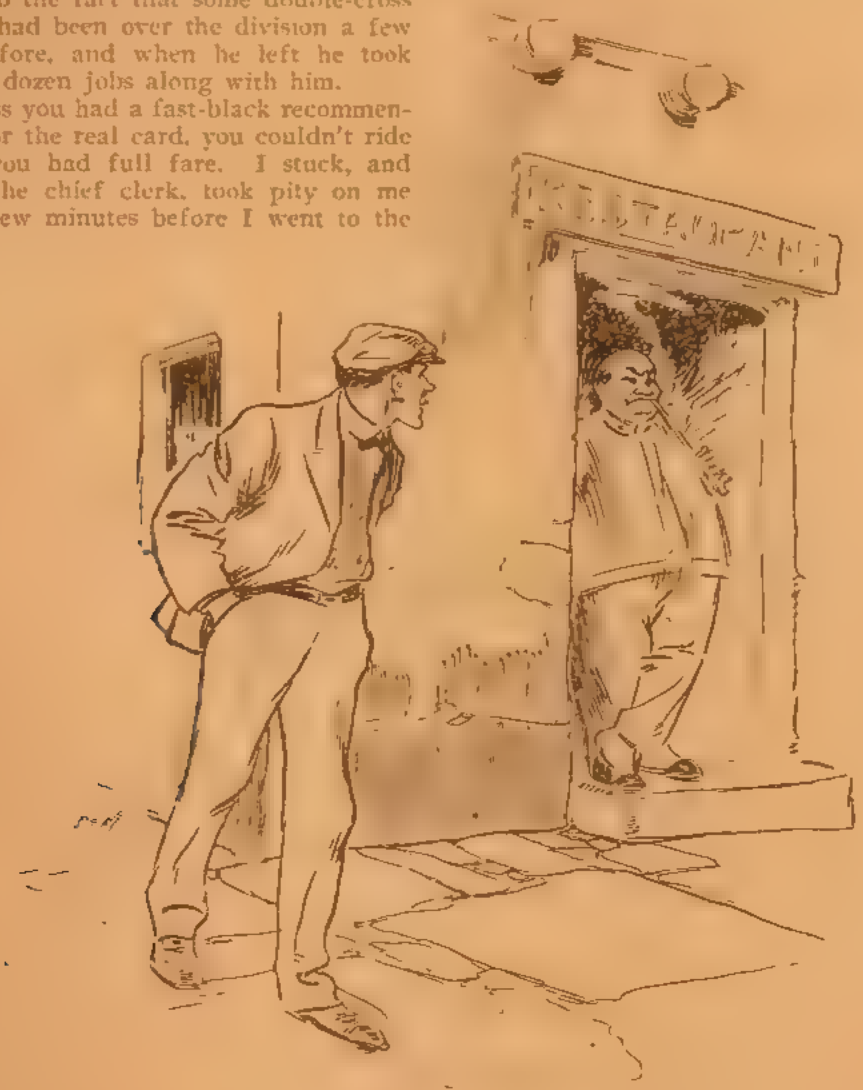
I ducked and came back strong with a new lead, and we finally got together. They were to carry me on the pay roll as a machinist helper, but my heavy work was to wear the point off a lead-pencil chalking up the "Brownies" for the gineers who failed to make running time with double tonnage, or for firemen who had had the poor form to allow the passenger in the upper berth of the tender to be seen by the traveling engineer.

My first job was sorting out and indexing the personal record files, which had been dumped, in disorder, in a little 8x10 galvanized iron shed, when the fire was discovered. I worked in that place without ventilation for three hours that first morning.

For three hours I toiled and sweated and thought of the inviting shade under the old apple-tree, and decided a dozen times over that I would give it the high sign

and every time I remembered that it was two hundred and eighty-six miles to Albuquerque and eight hundred miles to Los Angeles, I reconsidered, for walking was bad and the stingers were hostile, owing to the fact that some double-cross spotter had been over the division a few days before, and when he left he took about a dozen jobs along with him.

Unless you had a fast-black recommendation or the real card, you couldn't ride unless you had full fare. I stuck, and Brick, the chief clerk, took pity on me just a few minutes before I went to the floor for the count, and took me into the box car.



AN UNSYMPATHETIC CHINESE STANDING GUARD IN THE DOORWAY OF EVERY BEAN GARAGE.

After I had been meeting myself quite regularly at the Chinaman's table for a while the world began to look brighter, and I finally got so independent that I walked right up to Brick and asked him how much real money I was to get for this clerk job. He informed me that if I was real good and lived the month through, I would be credited on the payroll with sixty-six dollars sixty-six and two-thirds cents.

Of course, as the In and Out never overlooked a fraction, I couldn't count on that two-thirds of a cent. Then I had to give up fifty cents out of that check for the hospital fund and two dollars for water rent; a few other deductions brought the amount down to fifty pesos.

If I do say it myself, I made good as a

clerk. I could jack-up a fireman just as hard as any other guy about the office, hand him out a regulation load of sarcasm, and give him just as picturesque a spiel on the duties of a fireman as any other clerk in the place who didn't know the difference between a scoop and a shaker bar, and who probably would have to hesitate a minute to distinguish between a small lump of Gallup coal and a compound liver pill.

I got just as conceited as the general run of clerks who get small pay with lots of authority, the only difference being that I kept trying to back mine up with a physical argument, which often proved hard on my eyes and at times kept me in bed for a few days, until the boss informed me that I would have to tame my disposition a little or search for other fields of employment. That decided me.

The Real Thing.

I had something like six bits in my pocket, and it's surprising how independent a fellow can be with all that money to spend, so I waited my opportunity and decided that I would change jobs. I wanted to get into the transportation department of the road.

So I took a quiet trail after the "Old Man," caught him on a siding, locked the switch, and tied into him head-on for a job in his department. I landed.

Just take it from me, there are officials and other officials, but the "Old Man" was an *official*. He was there with about six feet of length and four feet of circumference, and if there is a job on any railroad which he can't handle, it's unknown to yours truly.

You can travel over the In and Out Railroad and back again, and you can hear all kinds of stories about officials, but whenever you hear any one mention "I. L. H., the Old Man," you will also hear him add, "and he's all the goods."

I have seen these officials who get all swelled up over the importance of their position like a yellow pup that has partaken too freely of an arsenic wafer. Then I've seen the kind who never forgets that he came up from the ranks, but when it came to being one of the men, you had to give it to the "Old Man." You simply had to pass him the striped candy.

He could get mad—just as mad as any one, and his great neck would swell and turn red like a turkey-gobbler's, but even when he was mad, you always knew he was right, and stood up and took your medicine like a little man. He knew his business. That's why he commanded the respect of every man on the road from the boomer switchman to Old Red-Hot Frost, who was the first conductor on the road.

He always had time to listen to a grievance, and every fellow who went against him found him square. That's why he is general superintendent to-day, and that's why he will go higher than that before they put him under the sod.

Well, me to the "Old Man" for a new job. I got it. He referred me to his chief clerk, a large, generous chunk of anatomy who had most everything needed in life except brains, a fellow who couldn't write on a typewriter without stuttering, and as I could out-talk him, I landed.

They gave me a job as clerk to the train-despatchers. My boss was a nickel's worth of animal matter, by the name of Dixon, and he paid me seventy round dollars a month to figure tonnage-sheets and take care of the train-sheets, and as the job took a fellow with big feet and little gray matter, I made a success of it.

In the New Job.

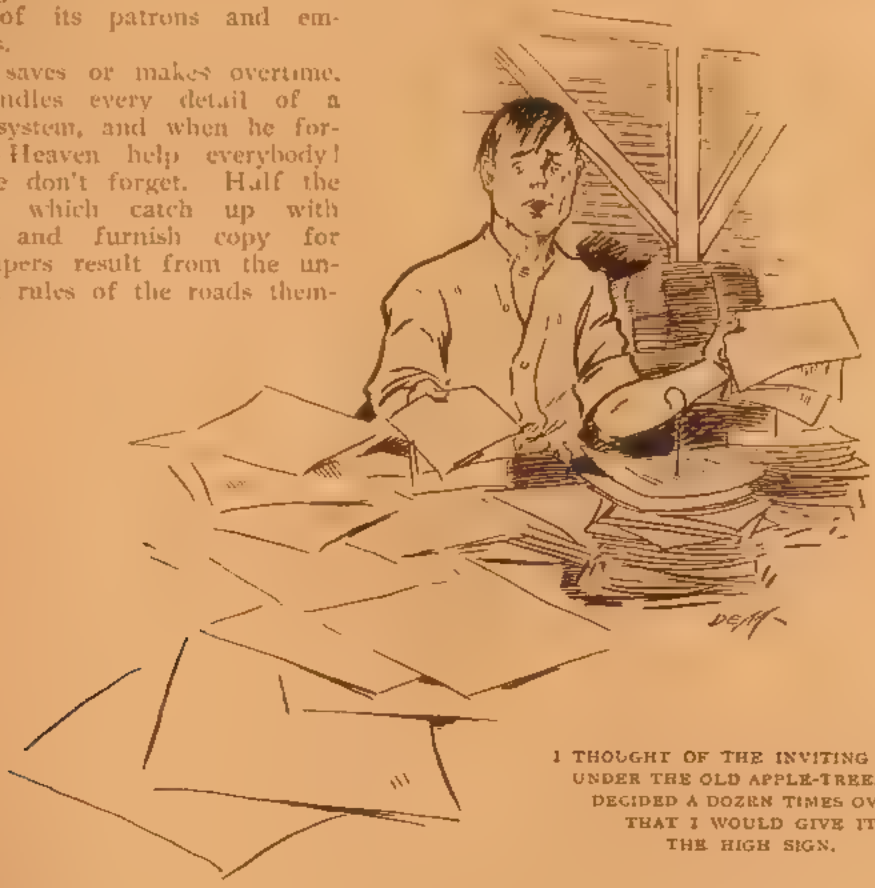
I'll have to give it to those train-despatchers, and I'll hand over the bacon to that fellow Dixon as the wonder of them all. I don't care where you go, what the complications are surrounding the job, in all the world you will be unable to find a position which carries with it more responsibility than hangs over the man who works a trick at a despatcher's table on a busy division in a busy season, and, be it said to their credit, as a class they are alive to the responsibility, and, taking all together, are as fine a set of men as ever followed a nerve-trying occupation.

A despatcher is the whole works around a railroad. On his wits, on his brain, on his ability to remember and forget, depend the success of the entire

system and the lives of both passengers and crews.

He's the fall guy, at that. The big squeeze makes the polley, and he carries it out. On every move he makes, on every tick of his instrument, depend the earnings of the road and the lives of its patrons and employees.

He saves or makes overtime, he handles every detail of a great system, and when he forgets — Heaven help everybody! But he don't forget. Half the wrecks which catch up with trains and furnish copy for newspapers result from the unwritten rules of the roads themselves.



I THOUGHT OF THE INVITING SHADE UNDER THE OLD APPLE-TREE, AND DECIDED A DOZEN TIMES OVER THAT I WOULD GIVE IT THE HIGH SIGN.

Don't let any one tell you that a despatcher has an easy take. The wonder is that four fifths of them don't land in the house with the upholstered walls, for the strain is something frightful, and just about one wreck in a lifetime is enough to send a good man dippy. I never will forget the first wreck for which I sat down and waited, knowing that just as sure as the world kept its trolley on the wire and went on spinning around for thirty minutes, there would be trouble of the real, original brand.

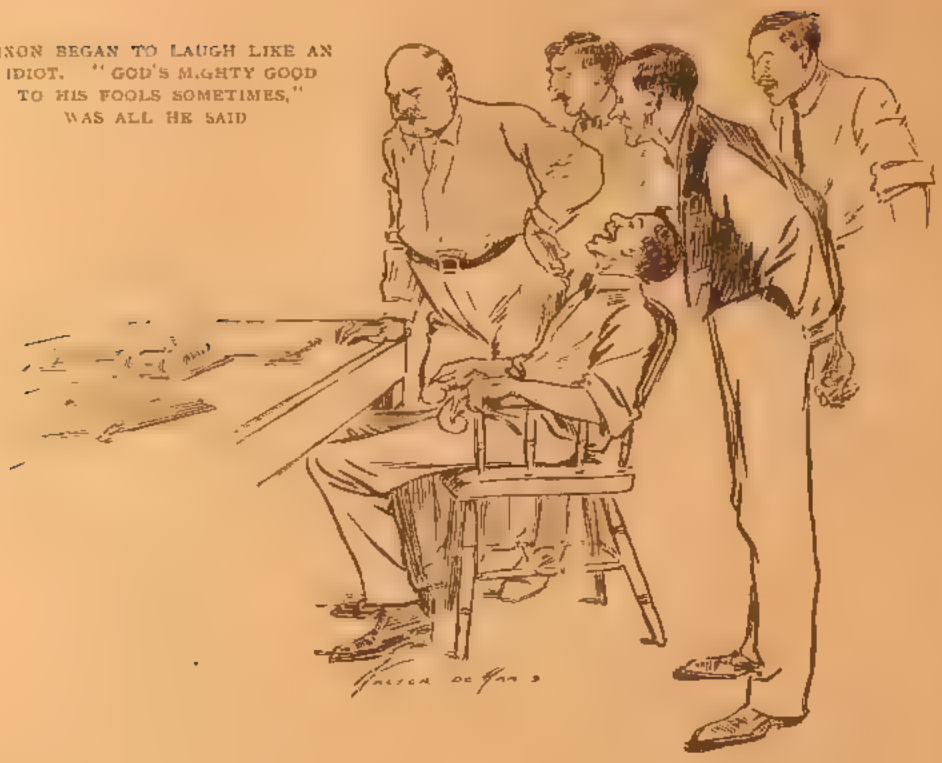
It was one beautiful afternoon in July —July is always a beautiful month in Arizona—I don't think. Sand storms galore, and on this particular afternoon the movement of real estate was so brisk that one could hardly see across the street.

My old friend George Robinson was working the second trick that afternoon. He had his orders out, and everything was running along as smoothly as a well-greased political machine.

Regular 34 was on time coming west, and a double-header orange-train was running extra east. He had given the extra east a positive meet-order with 34 at Hulbrook, and had the order out at that station for 34.

The Orange Extra.

George was in the midst of a graphic description of a fishing trip to Clear Creek Cañon, and the narration of that time-worn story about the "biggest fish which got away," when Hulbrook "OS'ed" 34 by. George's face went



DIXON BEGAN TO LAUGH LIKE AN IDIOT. "GOD'S MIGHTY GOOD TO HIS FOOLS SOMETIMES," WAS ALL HE SAID

white. He whirled around to that desk and got busy on the key in mighty short order.

He asked the operator at Hulbrook if the orange extra had showed up, and he replied that it had not. He then asked him if he had delivered the meet order to 34, and when the answer came over the wire, George just left his key open and turned around.

Every operator and despatcher in the office had read the conversation as it came over the wire. No one spoke for a moment. George turned back to his train-sheet and ran his finger down the column in which he was keeping 34's trip, and up the column in which was the orange extra's figures; saying nothing and thinking—Heaven only knows what!

Perhaps he was thinking that Riley Walcott, one of the engineers, was his friend and neighbor—and perhaps he wasn't. While he stared at that train-sheet, that little fellow Dixon was looking at the ceiling and punishing a chew of tobacco.

"They'll meet on the curve just beyond the Aztec cut," he remarked. "Extra has a Baldwin hog and a Vauclain, and 34 has a prairie type passenger-engine, and they'll be running like a bullet out of a gun."

Then Dixon got busy with the yard master. The switch-engine ran down to the hoodoo track, coupled onto the wrecking-train, and backed down in front of the despatcher's office and waited for orders.

Fully a dozen men sat there in that office and silently waited for a mix-up that promised to be one of the worst ever on a mountain division of a Western road. Say, if I live to be a thousand years old, I will never live through such a long twenty-seven minutes again.

Saving the Train.

Then there was a click of the key—the report of the disaster, of course—and to show just how uncertain is a certainty, the operator who had failed to deliver that meet order sent this over the wire, "34 is backing into the station—no harm done," and the strain broke. Dixon began to laugh like an idiot.

"God's mighty good to His fools sometimes," was all he said, but a few min-

utes later he got that operator on the wire and told him to take a long vacation—just as long as he wanted, and then ten years more.

Just to show how close it was, Engineer Walcott, who had been on 34, came into the office after he had registered in. He had his usual smile set out on his face, didn't appear a bit nervous, wasn't sore at any one—just took the whole affair as one of the risks of the game.

"Didn't get me that time, eh, George?" was his greeting, and then he told a few of the details.

He had failed to get the meet-order at Hulbrook and pulled out right on his schedule. As there were no stops between Hulbrook and the terminal, he was swinging along at about thirty miles an hour with thirty-five cars. He hit the Aztec curve just as a section foreman came running out of the cut, waving his hat frantically.

Knowing what he did about this game of railroading, he gave that string of cars the big hole, stopped, and backed up just as fast as he could. The extra poked the pilot of its first engine two carlengths over the spot where Riley stopped before backing up.

A section foreman had seen the trains approaching, had sent a Mexican one way and had dashed down the track the other, and his wits had saved several lives and a good many thousand dollars' worth of rolling-stock.

In the November issue, Mr. Herr will tell how he went through "the smoky end" of his career, and finally got on the salary-list as a full-fledged "Stinger."

HOW A TUNNEL IS BORED.

A Mountain Is Worked Through from Opposite Sides, and, in Nearly Every Instance, the Borers Meet.

TUNNELS are not pleasant to ride through. They are, moreover, fearfully expensive to construct, and they necessitate a double inspection. But—and the "but" in this case is a very large one—they reduce grades and distances in wholesale fashion, and so in a mountainous country the engineer must be prepared to drive tunnels and the folk who come after him to operate them. The tunnel job is apt to be a separate part of the work. It calls for its own expert talent.

If the tunnel is more than a half or three-quarters of a mile long it will probably be dug from a shaft or shafts as well as from its portals. In this way the work will not only be greatly hastened, but the shafts will continue in use after it is completed as vents for the discharge of engine smoke and gases from the tube.

The ordinary course of such work is by the use of cutting shields proceeding simultaneously from the portals and from the footings of the shafts. These shields are to be likened to steel rings of a circumference only slightly greater than the finished tunnel.

Men working on different levels of this shield, with pick and drill and dynamite, press forward and clear a path. Tracks follow the cutting shield. Electric locomotives are used whenever possible in removing the material. The use of electricity keeps the tunnel quite clear of gases and makes the safest light for the workers.

In rare cases the rock through which the tunnel is bored is strong enough to support itself. But in most cases the engineers prefer to line the bore with brick, as a rule, and this lining is set in place right in the path of the cutting shield. After long weeks, and perhaps months, of work the time comes when the different bores meet and the tunnel is a single underground tube, from portal to portal.

Recent Railroad Patents.

BY FORREST G. SMITH.

Solving Problem of Sand-Box Valves—A Renewable Switch-Point—Describing a New Coupling New Extension Step that Is Automatic —Torpedo That Will Not Fail Bracing Rails Against Creeping —Trip Action On Air-Brake Improvement In Car-Stops.

A SAND-BOX SOLUTION.

Overcoming the Problem of Clogged Valves That Has Been the Chief Difficulty in this Piece of Equipment.

OWING to the employment of valves in the sand-boxes of street railway-cars, and the fact that these valves frequently become clogged with sand, considerable difficulty is often experienced in properly discharging the sand from the box to the tracks, and also in closing the valves after having been opened. In a patent (No. 926,586, June 29, 1909) issued to Thomas J. Mullen and Thomas F. Brennan, both of New Brighton, New York, there is disclosed quite a novel form of sand-box and means for controlling the discharge of sand therefrom

The box consists of the usual hopper body, in which the sand is contained, and slidable beneath this body is a plate having an opening, which is adapted to register with the open lower end of the body when the plate is slid to one position. This plate is preferably supported by means of links from the body, and a lever is connected at one end of the plate whereby it may be moved as stated

A stout leaf spring, carried by the hopper body, has engagement at one end with that end of the plate opposite the end to which the lever is connected, and this spring tends normally to hold the plate so that it will completely close the discharge end of the hopper. When it is desired to sand the tracks the lever is so rocked as to slide the plate against the tension of the spring. This brings the opening in the plate into registration with the discharge end of the hopper, thereby permitting sand to flow from the hopper and through a flexible pipe, which is connected with the plate at the opening and directs the discharged sand onto the tracks.

The advantage of this device lies in the fact that there is absolutely no chance of the plate becoming caught or failing to completely close the discharge opening of the hopper.

AN ECONOMICAL FROG.

Renewable Point Which Saves the Replacement of the Entire Switch, as Previously Necessary.

A NOVEL railroad track structure, relating to switches, mates, frogs, and the like, is covered in a patent (No. 926,133, June 29, 1909) issued to Arthur J. Pembleton, of Cambridge, Massachusetts. Ordinarily, as is well known, such structures comprise a foundation or body, a point which is cast integral with the body, and rail extensions which are integral with the ends of the body and extend considerably there beyond.

In such structures, however, when the point becomes worn, which happens long before the rail extensions begin to show wear, the entire structure requires to be replaced at considerable expense. In the structure shown in the patent, however, that portion of the body upon which the point is formed is separate from the portions upon which the rail extensions are formed, and from which they project, and the meeting ends of the several sections are formed with apertured lugs, through which are passed bolts, securing the several sections together.

When the point of the structure becomes worn so as to be useless, only that section upon which it is formed need be replaced.

the bolts connecting the several sections being removed for this purpose. In such a construction there will be a very considerable saving of material in making repairs.

SAFE-COUPLING DEVICE.

A Projecting Lever Renders It Unnecessary for Trainmen to Go Between Cars.

WITH the object in view of eliminating, so far as possible, the chances of accident to members of train crews in coupling and uncoupling cars, Jesse M. Arthur and John P. Birmingham, both of Lexington, Virginia, have devised a means whereby a train of cars may be coupled or uncoupled without the necessity of the members of the train crew going between the cars.

In carrying out the invention there is employed the ordinary form of coupling head and pin, but a lever is pivotally mounted upon the car across the end thereof and is provided at one end with a handle which projects slightly beyond one side of the car. The other, or inner, end of the lever is formed with a hook, which is engaged with the eye at the upper end of the coupling pin.

By grasping the handle end of the lever, and without going between two cars, the lever may be rocked so as to withdraw or insert the pin in the head. A patent (No. 926,636, June 29, 1909) has issued to the inventors of this device.

EXTENSION CAR-STEP.

Automatic Action and Convenient Position Give Chance for Excellent Results.

AN extremely simple construction of extension step for railway passenger-trains is evolved in an invention covered by patent No. 925,746, June 22, 1909, issued to Edward F. Howell, of Wapanucka, Oklahoma.

While quite a few such steps have been devised, they are all raised and lowered through the medium of hand or foot levers, which project up through the platform of the car. This is, however, undesirable, in that they are attended to by the members of the train crew, and this necessitates waste of considerable time on the part of the crew. Furthermore, they are liable to be accidentally actuated by passengers, and this might result in the steps being lowered into the path of some obstruction.

It is desirable to provide a step of this character which can be readily actuated, as far as being lowered to extended position is concerned, by any passenger leaving the train, but which cannot be actuated except by descending to the lowermost step of the platform. The structure disclosed in the patent embodies a U-shaped hanger, upon which the extension step is secured, the arms or spaced portions of the hanger being slidably mounted in suitable guides upon the sides of the frame in which the stationary steps are mounted.

From this it will be understood that the hanger may be slid upwardly to position the extensible step beneath the lowermost one of the stationary steps, or may be slid downward so as to position the step for use in ascending to or descending from the platform. A spring latch normally holds the step in elevated position, but is so constructed, preferably, that downward pressure with one foot upon the extensible step will lower it.

TORPEDO IN ONE PIECE.

Explosive in Which the Cap and the Wrapper Cannot Become Separated in Operation.

IT frequently happens that the ordinary torpedoes now employed fail to explode owing to the fact that the contents of the wrapper, or cap, is lost, due to splitting, or opening, of the cap when engaged by the car-wheels, and, in fact, the torpedoes are often thrown from the rails when not squarely engaged by the wheels. Such torpedoes are usually formed of a two-part wrapper, the parts being fitted together more or less securely. A torpedo and holder therefor, which embodies advantages over those at present employed, is disclosed in a patent (No. 925,857, June 22, 1909) issued to Edward P. S. Andrews, of West Windham, New Hampshire.

In carrying out the invention, the explosive charge is placed in the mid portion of a metallic tube, and the end portions of this tube are then flattened and folded under the mid portion, with the ends terminating at the ends of the said mid portion containing the charge. This tube is then placed flat upon the central portion of a plate, the side edge portions of which are folded down so as to adapt the plate for disposal upon the tread of a rail.

The plate is formed at its end edges with tongues, which are bent up and engage with the ends of the mid portion of the tube, and serve to hold it securely in its folded posi-

tion and against displacement in any direction. Inasmuch as the tube, when properly folded and arranged in the holder, is held longitudinally of the rail upon which the holder is disposed, the car wheels passing over the tube will so act as to more tightly fold the tube, and thereby prevent spilling.

NEW IDEA IN RAIL BRACES.

An Invention that Prevents the Creeping as Well as the Spreading of Rails to Which It is Fitted.

THE railway rail braces now employed, while they are in most instances effective in preventing spreading of the rails, do not prevent creeping. A rail brace structure, protected by patent No. 925,981, June 22, 1909, issued to Michael P. Bardon, of Guernsey, California, attains both of these objects.

Each of the brace structures covered in the patent consists of a set of three rods, two of which are disposed diagonally between the rails to be braced, and the third transversely at right angles between the rails. Midway of their ends these rods intersect and a bolt is passed through them at this point to secure them together.

Each end of each of the rods is engaged through an opening formed in the web of the adjacent rail, and nuts are threaded upon the ends of the rods to secure them to the rails. It will be understood that the transverse rods serve to prevent spreading of the rails, and that the diagonally disposed rods serve to prevent creeping, as well as cooperating to prevent spreading

TRIP-LEVER FOR AIR-BRAKE.

System Which Will Act as Check on Engineer Setting Brakes When Danger Signal is Ignored.

A NOVELTY in air-brake systems is disclosed in a patent (No. 926,214, June 29, 1909) issued to John W. Sharp, of Chicago, Illinois. It is the primary object of the system to provide means for maintaining a double check on the engine crew as regards the observance of signals at stations and block-houses. In carrying out the invention the cars of the train are equipped with the usual train pipe and brake cylinders, and the train pipe is provided with a branch, in which is arranged a valve having an operating, or trip, lever connected with its ping. This lever is so positioned as to be engageable by trip devices, which are arranged at the stations, or block-houses, and are set in operative position when the danger-signals are displayed.

Should the engineer of the train fail to heed the danger-signals at any station and run his train past the station, the trip devices will engage with the valve lever mentioned and will open the valve, thereby setting the brakes and automatically bringing the train to a stop. The other means embodied in the system for keeping check on the locomotive crew is embodied in a valve which is interposed in another branch of the train pipe, and which is adapted to be operated by any one of the train crew who happens to observe that the engineer has passed a danger-signal. This emergency valve is provided for the event of the first described brake setting failing to work, or in case any member of the crew happens to observe some track or other conditions which warrant the stopping of the train.

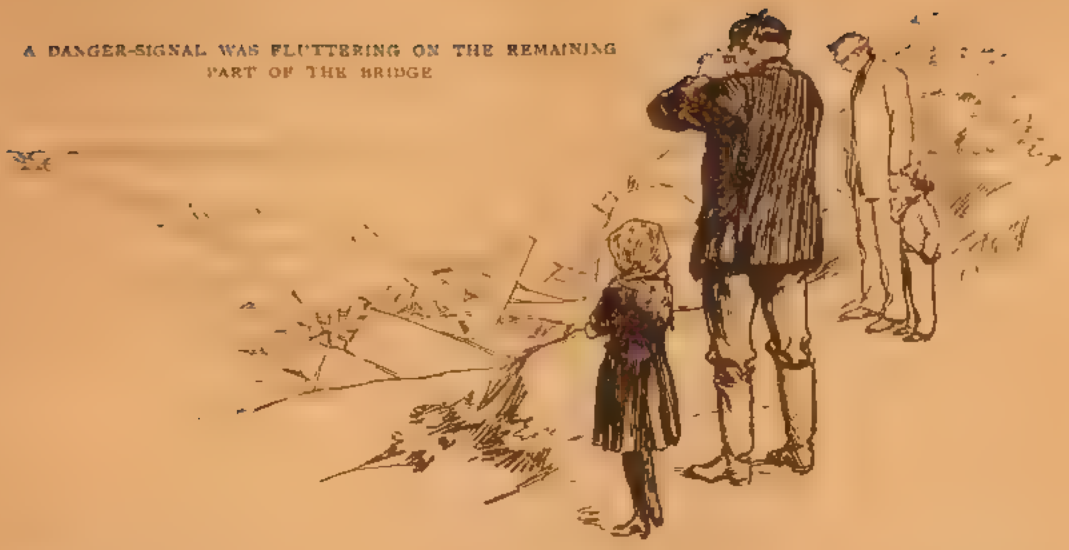
CONVENIENT CAR-STOP.

Patent Covering or Device Which is Easy to Apply and Dismount and Does Not Damage Track.

THE ordinary form of car-stop of that class which is secured upon a rail, and against which the wheels of the car to be held rest, is embodied in a block which is to be bolted, or otherwise clamped in place, upon the rail. Where such stops are to be used only for a short time, considerable time is lost in applying and removing them, and for this reason it is desirable that a stop be employed which can be readily and quickly secured upon or removed from the rail.

The only ones possessing this advantage which have been so far devised have been constructed to fit over the rail and engage with the ties, but injury to the ties has resulted from their employment. However, in a patent (No. 925,875, June 22, 1909) issued to Robert E. Davies, of St. Joseph, Missouri, there is shown a car-stop which will fulfil these conditions.

The stop mentioned consists of a block, which is recessed to fit against one side of the rail, and also over the tread, or ball, of the rail, and against which the wheels of the car are to be held. To this block is pivoted the headed end of a lever, which headed end is of cam formation and firmly clamps the block against the rail when the lever is swung down to position beside the rail. When it is desired to remove the stop from the rail it is only necessary to swing the lever in an upward direction.



A DANGER-SIGNAL WAS FLUTTERING ON THE REMAINING PART OF THE BRIDGE

KITTEN CARROLL'S BOOK-LEARNING.

BY KEENE ABBOTT.

It Was Good Enough, Anyhow, to Save the Lives of Four Hundred People.

JIM CARROLL, the bridge watchman, had trouble with his left eye. Often he explained to his wife that his right one "got all fogged up when he was only a boy," and as for the other—well, she used to declare that "too much readin' matter was what ailed Jim," which only shows prejudice on her part, for Jim held stoutly to the notion that part of a sandburr had "blowed into his good lamp."

However that may be, it is a fact that he was a great reader. Often his wife made such a fuss about it (especially when he could not be taken from his book to bring in coal or chop kindling) that he would have to soothe her by saying: "Now, Kitten, don't you take on like that. Readin' is good for a body. It's great to brace up the cha-*rac*-ter of a man."

Although she had rather outgrown that pet name of hers—for she was big both east and west, and her north and south dimensions were also rather plump—it is true that "Kitten" still remained a very good word for Jim to use in getting around her.

Ordinarily, she was not averse to his reading. It was really remarkable how she had got used to it, and that she herself had also learned to read a little. The event of her day, during the first years of their married life, was her noontime visits to her husband at the bridge, when she would take him his luncheon, and sit with him inside the watchman's box, a little red house so small that it reminded one of a Noah's ark.

After he had eaten the contents of the tin pail and drunk the bottle of coffee to the last drop, the next thing was for him to get out his black, shiny pipe and blow into the mouthpiece. His red, bristly cheeks would puff out, like the

face of a cornet-player in a brass band, and sometimes he would hold the charred bowl to the window, shut one eye, clamp the tip of his tongue between his teeth, and try to see what was the matter with the stem that it would not draw.

When he had at length smoked his pipeful to settle his dinner, he would bring out a cinnamon-colored book from his bulging pocket, clear his throat as he opened the volume, and prepare to read

It must be admitted that Jim was not a very good reader. His voice rose and fell in a monotonous sing-song, and he stumbled on many words. Sometimes Kitten, sitting by the stove with the baby wrapped in a brown shawl, would fall asleep, and then he would speak severely to her:

"Kate, look here, now. Is that a nice way to do? I read you a story—a good story—but what is the use of it? You go to roost, just like a hen. You don't hear anything. My mouth gets dried up with reading to you; my eye gets tired, and then you—shame on you, woman!—you go to sleep."

"Sometimes I do; yes, that's so, Jim, but not this time. This time I was only thinkin', with my eyes shut."

"Did you hear me?"

"Not zacly—not all the while. No; I was thinkin' of us, and how we live." She put the baby into his arms, leaned forward, and rested her cheek upon his knee. "I get to wonderin', sometimes, why you ever took up with me. What a queer man! Me jest a common dance-hall girl, and yet you used to talk to me jest like you was my brother or father.

"It was downright amazin' what a good man you was. I thought you would soon be gettin' tired of me, but you don't. You read to me and talk to me, and yet I am just like a child for not knowing much."

"Well, what's that to make a row about?" he inquired, and he pinched her cheek and slapped her on the arm to let her know that she was very dear and necessary to him.

"Don't you see what I'm thinkin'?" she went on. "How will it be when our little boy grows up and finds out what a foolish mother he has? Now, if I could only read and write a little, maybe he wouldn't ever get ashamed of me."

"What silly talk that is!" he protested. "You ought to know that book-learnin' don't count for much. It's cha-*rac*-ter that counts. Look at Abe Lincoln; he wasn't much punkins on book-learnin'. It was the big heart in him and the nobleness of him that counted most."

After this lecture of his, the woman took the baby again, and the reading was resumed. Inspired by the notion that his wife considered him such a man as Abraham Lincoln, Jim put more life into his voice, made the sentences have more meaning, as though the people of the book were actually talking as people do in real life.

Sometimes he looked up from the printed page and noted how intently she was watching him, how full of interest were her moist, blue eyes. Her red lips revealed her white teeth, her arms pressed the baby tight against her breast, and presently, when he closed the book at the end of a chapter, she sighed, and shook her head, and wiped the tears away with the back of her hand.

In a hoarse whisper, she presently asked:

"That ain't all, is it?"

No, there was more.

And he would read it to her?

Not now—some other time.

For a while she said nothing more, but presently she opened her lips, started to say something, but did not speak. She sighed deeply, blinked, and her plump, dimpled chin continued to quiver.

"How real it is, all that!" she whispered. "Sidney Carton! He is going to have his head cut off, and nobody stops him! And that little girl! She doesn't even know why she is going to be killed. What bad, bad people to act like that toward a little girl! Worse than wild Indians. But he holds her hand, and talks nice to her, and then they keep on going to the scaffold. He is a kind man, and yet it—it makes me sort of sicklike and ashamed to hear that. Why do I want to hear it? It's so real and awful and hurts so that I

don't know at all what makes me want to hear it."

"You don't know? Well, it's very simple. You see, now—the turribleness, you see, ain't just for the sake of being turrible. Sidney Carton was a good man, wasn't he? All right, then; the goodness of his cha-*rac*-ter had to come out."

Hesitatingly the woman inquired:

"But ain't it lies, all that?"

"Well, look here, now; you don't think a nice, colored-up picture is a lie, do you? Course not; sure you don't. So, you see, it's the same about a good story. If it looks just like the real thing, and has nobleness in it, why, then, it's all right and agreeable. Now me, when I read a story like this one, it gets a hold of me."

The woman deeply pondered what her husband had said, and from that day she struggled harder than ever, under his patient guidance, to learn how to read and write, in order that she might have the respect of her children as they grew up.

When the little boy and little girl finally reached the age for memorizing nursery jingles, she began to teach them verses that would be good for the cha-*rac*-ter. Jamie, at the age of nine, as he stood on the table in the watchman's little home near the bridge, would send his father and mother into raptures by reciting to them the [illegible] narrative about the Mississippi River pilot who saved everybody on board the burning steamboat by holding

> her nozzle agin the bank till the last galoot's ashore.

"LOOK AT ABE LINCOLN; HE WASN'T MUCH PUNKINS ON BOOK-LEARNIN.'

It was in the winter of 1876 that Jim's eye went back on him. Inflammation had set in, and he was finally obliged to surrender his post to his father, a veteran of the Civil War and an Indian fighter who did valiant service against the hostile Sioux.

In February, when some Union Pacific officials and engineers were down to inspect the bridge and the condition of the river, it was, of course, impossible to keep the watchman at home in a darkened room, although his eye was very painful and had swollen almost shut. A season of anxiety had come to him—

anxiety about the bridge. It had been a hard winter, and the river had never before been so solidly frozen. Then, suddenly, warm weather had set in. For two weeks balmy winds blew across the prairie. Snows vanished, grass began to grow.

Into the broad Missouri hurled the ice-choked waters of many streams. From bank to bank spread the wash and clamorous voicings of the flood. Higher from day to day, higher still, and ever more ferociously swift tumbled the gurgling waters beneath the bridge.

"It was never like this before," Carroll told the officials of the company; but the chief engineer, he who had planned and superintended the construction of the bridge, complacently shrugged his shoulders.

"What of it?" he asked. "Out yonder is a mass of stone and steel that nothing can jar loose." His opinion was shared by other builders, by the division superintendent, and by the vice-president of the corporation. Perfectly safe! All believed that—all but Jim Carroll, the watchman.

"It's not the water—it's the ice under the water that scares me!" he announced, and gravely wagged his head as he lifted the white bandage off his red and swollen eye in an almost futile effort to see how the river was behaving. Stare as he might, he could observe only a wet, gray blur, but the others noticed how the current was split by the massive piers and turned back in frothing furrows on either side of every ponderous shoulder of solid rock.

All that day and all that night, Carroll did not leave the bridge, and whether it was his father or his wife who kept watch with him, he persisted in asking a multitude of questions. How much higher had the water risen? Did they think the ice would go out with a rush? Or would it melt gradually? Were they sure they did not hear it cracking? Did they think it safe for the trains to keep on crossing the bridge?

When he had been forty hours without sleep, his wife at last prevailed upon him to go home. Even then he might not have yielded to her entreaties if his inflamed eye had not swollen shut. It was so very painful that finally he suffered himself to be led away, and once in the house, he ate a little, drank some hot coffee, and then, without taking off his clothes, lay down on the bed.

Almost instantly Carroll fell into a trance-like sleep. Suddenly a muffled explosion roused him. Then came another, and still another. They were terrific shocks. There seemed to be a ripping in the bowels of the earth. It was as though some enormous, incalculable power were trying to cleave the world in two.

The house shook. The wailing wind fumbled and shuffled at the door. The man tried to open his swollen eye, but he could not. He called, and no one answered. He leaped from bed, knocked against the furniture, felt himself walled in by an abyss of darkness.

Was it night? He smelled the penetrating reek of a kerosene-lamp. But what time of night? He listened for the ticking of the clock. As he heard nothing, he knew that it had stopped. The quaking of the house might have done that but why had his watch also stopped? He fumbled the time-piece from his pocket, held it to his ear, shook it. He heard nothing. Well, then, he must have slept long, very long, so long that his watch had run down.

But why did no one answer him? Again he called, and again the house was dumb with a terrifying silence in which the wind cried aloud, and the windows jarred, and the doors shook in utter loneliness.

Presently some one came in. There was a gallop of little feet on the floor—feet that abruptly halted.

"That you, Jamie?" Carroll asked.

"Yes, pa."

"Well, boy?" He waited for a reply; but, as the child did not answer him, he repeated rapidly the one word: "Well—well—well?"

"It's down," said the boy.

"Hey? What's that?"

"The bridge—"

"Gone, is it? I knew it. I said so. I said it would. What time is it? Answer, can't you? Quick! Tell me now Daytime or nighttime? Where's your mother? Is your gran'pap— What time is it?"

The boy gasped with fright and said:

"He said—gran'pap said—he said to ma—"

"Well, out with it. Don't stand there like that."

The boy became more confused. Speech had been frightened out of him.

"Come, Jamie; come, now. Tell daddy what gran'pap said."

"Two hours and a half, he said—not quite two hours and a half till train-time."

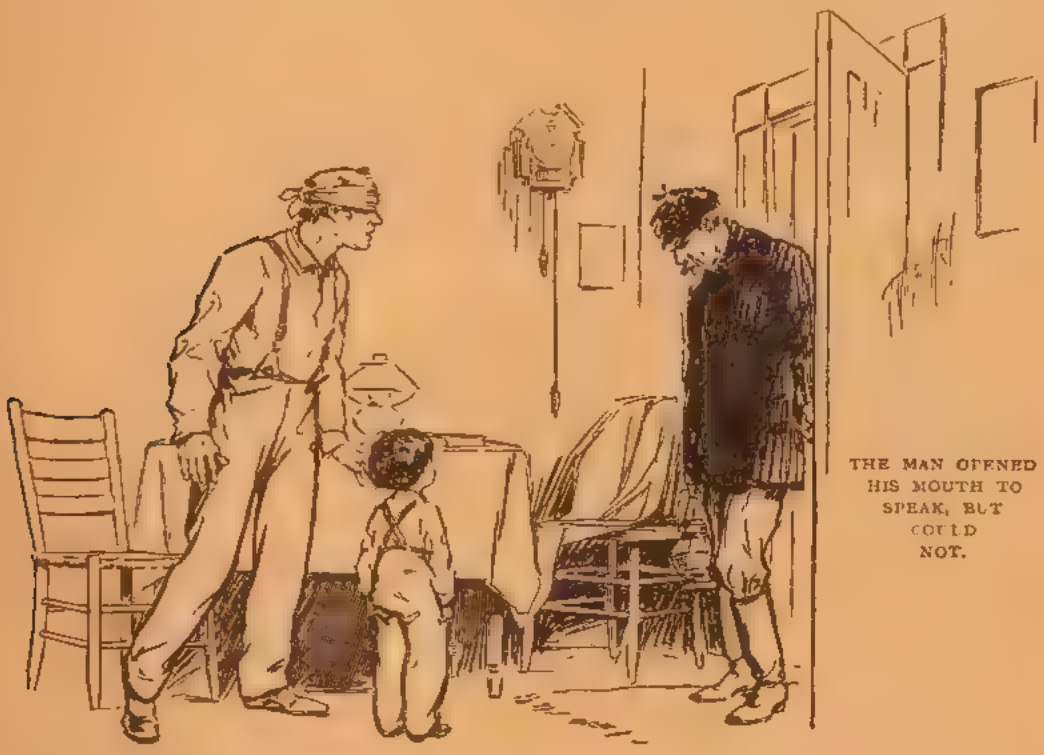
"Two hours, eh? Two hours and a half!" Carroll exclaimed, and began beating his hands against his legs. "Time enough! Good, my boy! Plenty of time to stop the train. He'll do it, Jamie. Come here, you little rat!"

The father caught the child in his arms, laughed, kissed the little boy repeatedly, slapped him on the back, and continued to talk disjointedly.

"A brave man, your grandfather! Awful dangerous work. He's crossing the river on the ice. And it's night—awful dark, I expect. He jumps from one cake to another. Maybe he falls into the water. Well, but he can swim good. He gets out again. He'll make it. If it was daytime, he wouldn't have to go. But nighttime, you see. And so, you see, he has to keep the train from running off into the river."

In the fever of his exultation his voice suddenly stopped short. The door had opened. A cold gust swept in, and with it came the noise of footsteps, the heavy clumping of boots upon the floor.

The little boy slipped from his father's arms. The man opened his mouth to speak, but could not do so. His father was there before him. Carroll's face had shifted expression. There was an interval of perspiring pallor, as though his whole body were sickened over with the ash and tallow of gray terror.



THE MAN OPENED HIS MOUTH TO SPEAK, BUT COULD NOT.

"What—what's to be done?" said the man who had come in. He set his lantern down, then took it up, then nervously set it down again.

With dry articulation, Carroll said:

"You—you didn't go."

"Go where?"

With an empty, colorless voice, Carroll added:

"Two hours and a half—plenty of time—and he didn't go."

Suddenly the watchman tore the bandage from his eye. Then, with his fingers, he squeezed open the swollen lid. With terrifying scrutiny, he stared at his father, and straightway the elderly man became interested in the muddy toe of his boot. The bristling end of his gray mustache twitched against his leathery cheek as with an air of bravado he suddenly threw up his head.

"No, I didn't drown myself. Not me!" he exclaimed. "I may be crazy, but I ain't no such jackass as that."

With choking hoarseness in his voice, Carroll said:

"He didn't do it, Jamie. He didn't go. A soldier, a brave man; but he won't do this thing, Jamie, not him! Out of my house! Put down that lantern! Get out!"

As the man made no movement, and stood there in a stupor of amazement, Carroll fumbled on the stove-hearth for the iron poker, caught it up, and jerked back his arm as if to hurl the missile. Then, slowly, he relinquished it—let it drop on the floor. With quick determination, he called his son: "Jamie, come here. Give me your hand."

The child was too much stricken with terror to advance, and again his father called him:

"What—you, too? Are you afraid? Will nobody help?" A coaxing tone came into the man's voice as he added: "Come, Jamie; there's a good boy. Give me your hand."

The child winced with pain as his father's strong fist gripped the wee fingers. The boy tried to pull back, but the man jerked him close. "Now, Jamie, grab up that lantern. Take me to the river."

The boy fell to crying, and dropped on his knees. "I can't," he whimpered, and the man gave the small arm a cruel wrench.

"Come, none of that! Get up! Do as I tell you!"

It is strange what courage there may be in such a little boy. Commonly an obedient child, Jamie this time could not be cowed into obedience. He called his mother; at the pitch of his shrill voice he screamed for her to come.

As the man put a heavy hand over the child's mouth, he said:

"Get up, you little fool! None of that! She's not here. I called her, and she didn't come."

"Yes, she is—she is, too, in the house! She was all tired out. She went to bed right after supper. She'll come. Have *her* take you to the river."

"Then wake her. Get her up!" Carroll exclaimed. He had scarcely released the child's hand when the outside door again opened, this time to admit a small woman of seven, with wisps of tawny hair flying about her pale face and her eyes all red with crying.

"Run, Jamie!" she panted. "Ma says to hurry with the lantern."

"You, Rose? Is it you?" her father asked. "Where's your mother?"

"Out there," the child moistly replied.

With parched articulation, the father repeated the words:

"Out—out there!" His mouth quivered, and he knocked his heavy fists against his temples. Then, seizing his head by the hair, he rocked it violently back and forth.

In his anguish of despair, he said, almost quietly: "She got rid of you. She sent you away. The lantern was an excuse to get you away from her. You lied to me, Jamie. You said your mother was here in the house. Mother? You have no mother, Jamie. She's gone. She thought I couldn't see how to cross the river on the ice. *She* went. We're alone, children. She's gone away from us."

He was convinced of this. He was thoroughly and terribly convinced, and yet he fought against believing it. With the children leading him, the three went forth into the night, and called and cried aloud to the woman who was gone from them. The wailing of the wind out of the darkness replied to their shouts, and to the sobbing of little children the wet-lipped laughter of the rushing river gave forth its gurgling answer.

The spectral light of the new day disclosed a breech, an ugly wound in the landscape. The icy teeth of the river had gnawed the bridge away, broken it, wrenched it, torn it down. On the Omaha side of the gray-and-yellow flood the mangled wreckage remained to tell of the terrific force that had been at work. Submerged telegraph wires, slant-

ing up from the water to the bank, kept jerking and vibrating like harp-strings. The broken back of the bridge, sloping down into the current, but still held together by the railway tracks, continued to pulsate and groan with the ramming and battering of the ice cakes.

In the distance, to the north, the gray, even field of the river was marbled with yellow streaks, showing the disintegration of ice which came floating and herding on down-stream, making the twisted iron rods of the bridge heave and clank and chatter as the frozen blocks successively knocked themselves against the wreckage.

The coming of the dawn brought no relief to the Carrolls, and worst of all to bear was the uncertainty. Abashed and taciturn, the grandfather had joined the watchers by the bridge. From the house he had brought a pair of field-glasses; and, as the day advanced, he could make out that a red flag, a danger-signal, was fluttering on the remaining part of the bridge on the opposite shore.

"Well, the train didn't go down. That's sure," he said.

Almost timidly, the watchman asked:

"Did she? Could she, do you think—"

Out of pity for his son, the old man replied

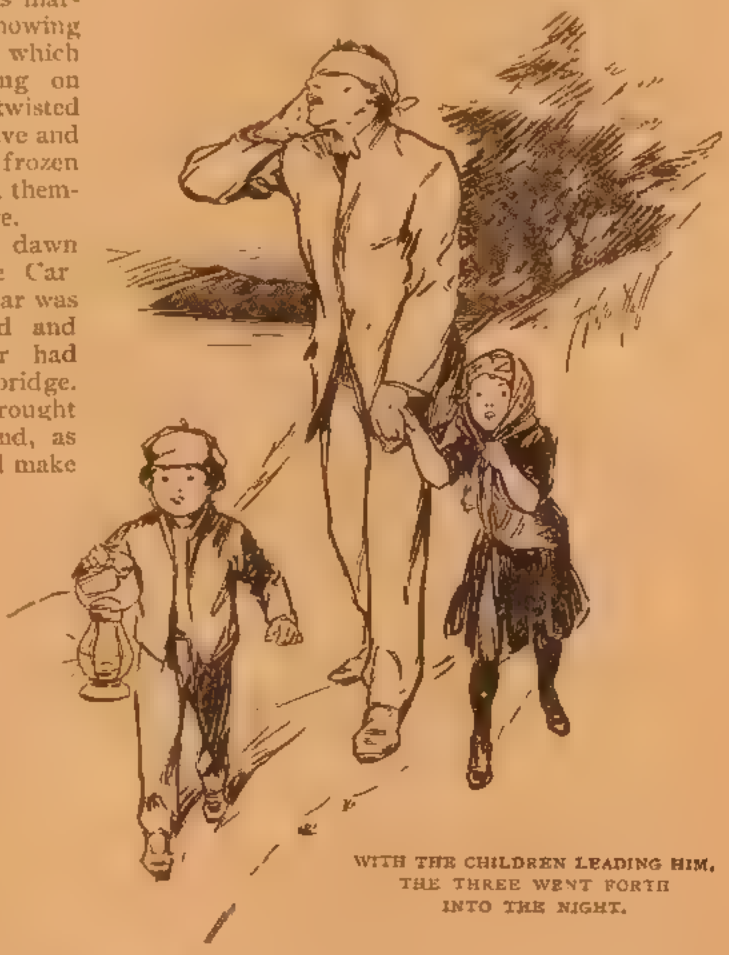
"Maybe so. Maybe she stopped the train.

"You say that, but you— How could that be possible when she couldn't swim? If you had known what she was going to do, you would have stopped her, wouldn't you? You wouldn't let her do that thing. She sent the children away. She kissed Rose, and Rose cried, because her mother was crying. You see how it has turned out. Well, engineers are always careful when the water is high. They stopped the train. It was needless for her to try to warn them that the bridge was down."

"Yes, that's so. Quite needless."

"What, you can say that? It was not. She had to go. Well, and she did it, and there's an end of it. Only I do hope we can get the body back."

As the day wore on, some officials of the railway company came down to the river to inspect the damage that the ice had wrought; and when they heard of the bereavement that had come to the watchman's family, they were very sorry for him. But they talked so much, they asked so many questions that he went home with his children and shut himself up in the house.



WITH THE CHILDREN LEADING HIM, THE THREE WENT FORTH INTO THE NIGHT.

He had the little boy and girl eat something, and then sent them to bed. Afterward he sat down at the table, folded his arms on the board, and pillowed his head on them. He dozed a little; but, even in his slumber, the muscles of his face continued to quiver nervously.

It could not have been very long that he had remained thus when a knock at the door announced the arrival of visitors. Reluctantly he bade them enter, but did not rise from his chair. In his apathy of grief his head drooped to one side, and he was scarcely conscious of a man's tread on the floor, accompanied by the swish of a woman's skirt.

With gruff gentleness, Mr. Dawson, the division superintendent, was saying:

"Carroll, here's somebody that I guess you'll be glad to see. She's needed here—a good woman to cook, take care of the house, and sew for the children."

"Here! A woman?"

"Yes."

"You brought *a woman* here?"

"I did."

"Then, take her away. I won't have her here."

"Come, man, wake up! Don't you understand that—that— At least, thank her; and then, if you want to—send her away."

In an effort to get rid of his unwelcome guest, Carroll got promptly to his feet.

"If I spoke harsh, please forgive that," he said. "I can't, you understand; I can't slick up my manners now. I can't talk nice to you. A bad time to come. Maybe—some other time—we could stand it to have you here. Much obliged for coming. It was good of you."

To get through the ordeal as rapidly as possible, he held out his hand; and, as the fingers of the woman closed on his, there was something so fervid in the hand-clasp there was something so familiar in the pressure of those work-roughened fingers—that the man gasped and stood mute. He strove to speak. His lips wrenched themselves apart, but still there was no utterance.

AND SUDDENLY HER ARMS WENT TIGHT ABOUT HIM.

"Jim!" the woman whispered, and her hand shut tighter upon his.

"How's this? What? Who are you?" he asked, and then sorrowfully shook his head. "No," he added; "no, the drowned are drowned. And yet—and yet—for Heaven's sake, woman!"

"My husband!" she cried out, and suddenly her arms went tight about him. She began to speak. Laughter gurgled in her throat. Tears filled her eyes.

"I've come back," she said. "I came in a rowboat. Wires all down. No way to telegraph. Signaled, but couldn't make people understand. I'm safe. The train's safe. But, my stars! What a time I had to get across! Four hundred on board. Only think of that — four hundred—and all safe! Where are the children?"

She came to a breathless stop, and then solicitously inquired: "Have they had their breakfast yet?"

The Railroad Man's Watch.

BY H. F. MEDDRIL.

HAVE you ever noticed an engineer, a conductor, or a brakeman take one of these big silver-cased watches from his pocket and look at it just as if it were a human being? To the railroad man a watch is almost human, for it is the one thing in which he must place the most absolute reliance.

It is the only "tool" that he is obliged to purchase with his own money—everything else is paid for by his employers. But the manner in which it is regulated, cleaned, and kept in order for him makes a story of unwaning interest.

Constant Care Is Taken to Keep This, the Greatest of All Railroad Safeguards, from Gaining or Losing the Fraction of a Second.

ONE of the most important of the safeguards in railroading is the railroad man's watch. In classifying a watch as a railroad safety appliance, there is this distinction to be made, that while all other safety devices are procured at the expense of the railroad companies, the watch must be purchased by the engineer, conductor, or brakeman. The railroad employees, however, see no particular reason for objecting to this investment, partly because their well-paid position calls for no equipment of tools, and partly because a good watch is a permanent necessity in their calling.

Few of the vast army of travelers are aware of the rigid system in force in regard to the timepieces of the employees —their grade, regulation, and repair. A watch inspection system, or "time service," is now in force on a great majority of the railroads. In accordance with the inspection rules, a railroad man is compelled to purchase a watch of high grade; the minimum standard being what is known among American manufacturers as the seventeen-jeweled patent regulator, adjusted to temperature, isochronism, and five positions.

Must Buy a Good Watch.

While this is not by any means the most expensive watch produced in American factories, it has all the essentials necessary to good timekeeping and first-class service. The "time service" calls for a watch that will run within a variation of thirty seconds a week, and the watch above specified, with proper attention, will accomplish this and more. The rules also call for a lever-set watch in preference to a pendant set, as the former is less liable to get out of order,

the setting device being hidden away and less liable to be interfered with than the pendant setting.

The Time Inspector's Duties.

The inspection system calls for the service of a general time inspector and a staff of local inspectors, the latter situated at such points on the road as will make it convenient for the men to have their watches attended to in accordance with the rules. These inspectors are, of course, expert watch-repairers, and are generally selected from such local jewelers as are known to possess special competency in this line.

The railroad man, having provided himself with a watch of the specified grade, is compelled by the rules to submit this timepiece once every two weeks to a local inspector for regulation by comparison with a standard clock.

This bimonthly examination of the timepiece by the inspector is most painstaking. He notes whether it calls for cleaning or mere regulation, and a complete record is kept of the rate of the watch, the date of regulation or repair, the number of seconds gained or lost since its last inspection, the name of the owner, and other particulars.

This bimonthly examination of the card, which he carries on his person, and on which the inspector marks the rate of the watch after each inspection, affords a convenient means of comparing the rate of the watch at different times, and its improvement or deterioration in this respect. In addition to the record which the inspector keeps for himself, he has to furnish the general time-inspector with similar information, together with any personal report which he wishes to make.

It is the duty of the time-inspector to make note of such as may not submit their watches regularly for inspection, or whose watches are showing imperfect service. Prompt action is taken in all such cases to discipline the delinquents and enforce obedience to the rules.

It should be stated that the railroad man is not compelled to purchase his timepiece in any particular place or from any particular jeweler or manufacturer. The watch can be purchased anywhere, provided it is of the specified grade, and meets with the approval of the local inspector. Neither is the railroad man compelled to give his watch for repair to any particular jeweler or watch-inspector.

He can have the timepiece repaired by whomsoever he wishes, the only stipulation being that it be submitted for the approval of the inspector before it is again put into use. This is necessary to the thoroughness of the system.

System of Loaning Watches.

Another interesting feature of the time system is the loaning of watches to the men while their own are being repaired. The watch thus loaned must, of course, be similar to that left for repair, as the companies can take no chances on any imperfect timekeeper. Under the system of watch-inspection, which is generally regarded as the most perfect now in use, the inspectors are furnished with standard railroad watches in nickel cases, which they are free to loan to the railroad men while their own are being repaired. The loaned watch must be strictly up to the requirements laid down in the rules.

As the railroad "time service" specifies a standard for all watches, it is to the interest of the various watch companies to produce a grade which corresponds exactly to this standard. The railroad man is free to purchase any make he chooses, provided it is up to this standard. There is absolutely no discrimination, as is sometimes charged, and the best interests of the railroad men are carefully looked after.

Five Thousand Inspected.

Some idea of the number and value of the watches used on the railroads may be had from the reports furnished by the chief inspector. For instance, on the New York Central lines alone, a total of about five thousand watches were regularly inspected last year; and if we calculate the value of these watches at an average of twenty-five dollars (which is somewhat low), it will be seen that on this railroad the system calls for an investment of one hundred and twenty-five thousand dollars.

This is not taking into account the standard watches loaned to the men when their own are being repaired, nor the system of standard clocks, which is also an essential of the "time service."

The watch-inspection system is long past the experimental stage, and has proved its full value, both to the railroad companies and to the men. There is no record of any railroad having dispensed with the system once it is installed, and doubtless the time is not far distant when some form of "time service" will be made compulsory on railroads.

An interesting result of the system is the great pride taken by the railroad men in the time-keeping performance of the watches. It is quite customary to see these men comparing their time records and engaging in friendly disputation over the achievements of their watches on time-keeping. This spirit appeals most favorably to the railroad companies, and it also strikes a responsive cord in the traveling public, who have come to regard the railroad watch as a factor in their safety, and the only unerring authority on the exact time.

BIG SHIPMENT OF BUFFALOES.

The Canadian Northern Carries 347 Head, in a Special Train of 23 Cars, a Distance of 315 Miles.

UNIVERSAL and exceptional was the freight train of the Canadian Northern Railway that left Lamont for Wainwright, Alberta, one day this summer, laden with three hundred and forty-seven of the wildest buffaloes of the plains, to be shipped to new pastures in the rich northern prairie lands.

The train was made up of twenty-three of the best appointed stock cars, fitted with feed and water-troughs, especially built in the cars for the journey. Each car was arranged with separate stalls, for the buffaloes had to make a trip of three hundred and fifteen miles to a place where conditions more consistent with their nature—such as pasturage and shelter—are to be had, and where it is expected that the benefits derived from a milder climate will prolong the lives and increase the herd.

This consignment was only part of a herd bought by the Canadian government from Michael Pable, an Indian breeder in Montana, who, with singular foresight, herded together about twenty-five years ago some twenty-five of the animals.

The herd was bought in a lot, which was conservatively said to contain four hundred head. The price paid was about two hundred and fifty thousand dollars. When the last buffalo is lassoed and conquered, preparatory to being loaded and shipped to his new home, the herd will number about seven hundred.

The shipment meant an astonishing amount of hard and dangerous work. The animals are wild, and their powers of endurance are marvelous. The horses used are reenforced many times before a single buffalo is safely penned. The cowboys are experts in their line, and when their work is completed each should come in for a benefit from the hero fund.

The train-load of animals was in charge of Howard Douglass, who was assisted by nine typical cowboys, in whose physique could be discerned the healthful glow, the agile, graceful step, the piercing, cautious eye so strongly developed in men of their calling.

The Canadian Northern handled the animals with great care, because each buffalo had to be pulled onto a car and separately stalled. It took three days to get the entire consignment aboard. No effort at record-breaking speed was attempted, but right of way was accorded the train in all cases. Feed and watering facilities were had in the terminal yard at Saskatoon, where Superintendent S. S. Foley and Chief Clerk Barry and their assistants looked after every detail that meant comfort for the animals. Watering and feeding was done without unloading.

Two of the buffaloes died en route, one a small calf too young for the strenuous journey; the other a three-year-old cow that died from a bursted blood vessel, due to her wild attempts for freedom. Each buffalo is said to be worth one thousand dollars

The Railroad Man's Brain Teaser.

CAN YOU ANSWER THIS ONE?

IT is a fortunate magazine whose readers can anticipate the requests of the editor. Whether it is that this magazine is in such close contact with its readers that the wishes of the readers and the wishes of the editor are apt to be the same we do not know, but this seems a likely solution.

Last month we expressed a wish to have our readers send in some puzzles in response to a request that we continue the puzzle department. Before we could get the request in type, along came Mr. Charles G. Cook, of Newport, Rhode Island, with the following little mystery. Mr. Cook does not give us his postal address, but if he will send us his own solution of it we will hold it as the authoritative one, as is our custom.

Sound, as we all know, travels at a velocity of about one thousand one hundred feet per second. Let us assume that it takes just five seconds to travel one mile. A train standing two miles away on a track blows the whistle. It will take the sound about ten seconds to reach us.

Let us suppose that we are standing at a certain spot along a railroad track. A train is approaching us traveling at the rate of a mile a minute.

At a point exactly two miles away from us the engineer pulls the whistle-cord and holds it down for two minutes, or until the train reaches us. We see the steam coming out of the whistle when the cord is pulled, but do not hear the sound of the whistle for about ten seconds. When the train is opposite us the engineer releases the cord.

The whistle has been blowing for two minutes, but we hear the sound for only one minute and about fifty seconds. If the conditions are reversed, the train going in the opposite direction, and the whistle blown for two minutes, we hear the sound for two minutes and ten seconds.

Question: What becomes of the ten seconds of noise in the first case, and where does the ten seconds of noise come from in the second case?

THE TWO-TWENTY LOCAL.

BY EDGAR WELTON COOLEY.

How the Obstacles of Fate Prevented James Junkins Jentz from Keeping an Engagement with Cupid.

JAMES JUNKINS JENTZ turned softly on his swivel-chair and glanced suspiciously at the accountants at work at their desks.

A deep furrow creased his forehead between his brows, his eyes traveled restlessly from one to another of his employees, and his head was bent a trifle forward, as though he was anxious to catch any whispered comment that might be made.

But knowledge of his intense gaze was not made manifest by any of his subordinates; neither word nor sign betrayed any suspicion on the part of any one. Wherefore, Mr. James Junkins Jentz, having satisfied himself that there was no eye to witness what he might do, turned softly back to his desk, carefully unlocked a small drawer in front of him, and took therefrom a letter.

The letter was enclosed in an envelope, but the envelope was not of that appearance which characterizes business stationery. It was square in shape and pale blue in color, and the single sheet which it enclosed was of the same tint. The writing was unmistakably feminine; to paper and envelope clung the faint scent of heliotrope.

Mr. Jentz unfolded the letter quietly. A bright glitter illumined his eyes, his lips parted in a smile.

The epistle had been in the possession of Mr. Jentz for ten days, and during that time he had read it many times, and its every word was perfectly familiar to him.

But he read it again, partly because it was a new experience to Mr. Jentz, and partly because he wished to assure himself that nothing, not even the most trivial bit of information, should escape his memory.

"It will be glorious," it ran, "to fool my friends. None of them, so far as I know, even suspects our engagement. If you are careful, dear, no one need know of your presence in Arlington. You should arrive on the local at two-twenty in the afternoon. We can be married in the presence of only my immediate family, at six o'clock, and quietly take the eight-ten train for the East."

When Mr. Jentz had read thus far he carefully refolded the letter, replaced it in the envelope and slipped it into his pocket. Then he turned once more in his chair, and regarded with renewed suspicion the clerks in the other room.

But as even the office-boy, at that moment deep in the allurements of a dime-novel, bestowed upon Mr. Jentz not so much as a single glance, he drew a deep breath of relief and looked at his watch. It was 9.30, and his train was to leave in an hour.

Mr. Jentz arose from his chair in a very casual and indifferent manner. He struggled heroically to conceal from vulgar gaze or prying eyes the trepidation that suddenly had seized him.

He softly closed the roll-top of his desk, put his hat on in the most careless manner, passed into the hall, walked slowly and deliberately to the elevator, and was soon out upon the street.

But once clear of the office-building, Mr. Jentz hailed a cab, and was driven rapidly to his hotel. Without waiting to take the elevator he hurried up two flights of stairs to his apartments, grabbed his carefully packed suit-case, rushed down again, climbed into the cab, and was whirled away toward the railway station.

Upon entering the waiting-room he glanced uneasily about to make sure that nobody in the crowd recognized him. Beholding no familiar countenance, he strode boldly to the ticket-window and purchased a ticket for Arlington.

Making his way through the gate like a culprit eluding the law, Mr. Jentz sought an inconspicuous seat in a coach, pulled his hat well over his eyes, and almost shivered with apprehension until the train started.

But, once beyond the town limits, he drew another long breath of relief, raised himself to his full height and began to mentally review what would be expected of him when he should reach his destination.

He wondered what the boys at the office would say when they heard that he had slipped away to marry. The thought brought a broad grin to his face.

But one disturbing thought, one poignant fear, intruded itself upon Mr. Jentz's meditations. There were but ten minutes for connections at Arlington Junction. Suppose something should occur to delay his train, and he should fail to catch the local on the other road.

The mere supposition made him nervous, so nervous that presently, when a series of short, shrill blasts of the whistle was followed by a severe jarring and jolting that nearly threw him from his seat, he grew excited.

"Heavens!" he gasped, when the train came to a stop, "we're off the track!"

He threw up a window, and through the narrow opening he thrust his fat face and broad shoulders as far as possible.

At a road-crossing a herd of cattle was on the track. A farmer's boy was using his utmost to drive them off the right of way, but they had become entirely unmanageable.

A brakeman, standing upon the front platform of the forward coach, swearing vigorously, added much to the confusion that prevailed.

As the moments passed, Mr. Jentz manifested many evidences of impatience. He glanced repeatedly at his watch, thrust his head out the window only to draw it in again, cast frequent indignant glances at a timid little man across the aisle, as though he was to blame for the delay, and mumbled incoherently.

But the impatience of Mr. Jentz, intense though it was, was not potent to clear the track. So, finally, arising and making his way to the platform of his car, he addressed the conductor standing beside the train.

"Why," he demanded in a loud and rather boisterous voice, "doesn't that boy get those cattle out of the way?"

"I don't know," replied the conductor, struggling to keep his own temper under control.

"You don't know!" James Junkins Jentz regarded the conductor with undisguised contempt. "Why don't you know? Isn't it your business to know?"

"I don't think so," responded the conductor, heroically calm and unruffled. "I don't believe there is anything in the book of rules which requires a conductor to know why a cow, or any number of cows, persist in going in every direction but the one in which you wish them to go."

"I don't suppose there is," snapped Mr. Jentz, who was not in a pleasant mood. In the excited condition of his mind the delay seemed of unusual duration, and he was growing decidedly anxious regarding that connection at Arlington Junction.

"But I had thought that conductors were required to use every effort to get their trains through on time; that they were not supposed to sit down and wait until some blamed brindle bovine makes up its mind to get off the track!

"It would seem to me"—Mr. Jentz inserted his thumbs beneath his suspenders and glared crushingly at the conductor, "that passengers who have paid their fare and are anxious to reach junction points in time to catch connecting trains, have as many rights as any freckle-faced boy that deliberately drives his cattle in front of a train."

"If I were you," advised the conductor consolingly, "I'd go and sit down. I should try to keep cool. It is a very warm day, and one should avoid getting unduly excited."

Mr. Jentz drew in his breath violently, opened and closed his fingers spasmodically, and puffed out his cheeks. But he did not speak.

For the moment words adequate to do his feelings justice failed to manifest

themselves to his agitated mind. When finally his accumulated indignation was just about to relieve itself by verbal utterance, the conductor shouted: "All aboard!"

Mr. Jentz returned to his seat, but he did not keep cool. His face grew purple, and he shifted his legs from one knee to the other with nervous frequency.

His agitation, accentuated by the remarks of the conductor, increased rather than diminished, and he was very irritable when, a half-hour later, the train suddenly stopped again in the midst of far-stretching fields.

Mr. Jentz thrust an anxious face out of the window, but could see nothing to cause the delay.

A brakeman ran hurriedly through the car. Mr. Jentz hailed him, but the brakeman did not pause nor answer, so Mr. Jentz contented himself with scowling after his retreating figure and mumbling to himself.

But, as the train did not start immediately, Mr. Jentz presently strode wrathfully out upon the platform. A number of trainmen, with a bucket of water, were apparently doing something to one of the wheels.

"What's the matter?" demanded Mr. Jentz. "What are you stopping here for?"

"A hot box," replied the conductor shortly, favoring Mr. Jentz with one brief look of disgust.

"So!" resumed Mr. Jentz irritably. "First, it was cattle on the track, and now it is a hot box. What will it be next?"

"I don't know," admitted the conductor impatiently.

"Of course you don't know," resumed Mr. Jentz. "You haven't had time to make up your mind yet, have you? But you seem determined to make me miss my connections. If you do—"

Mr. Jentz did not say just what would happen in that event, but the altogether savage expression of his countenance boded ill to some one in the event the dire calamity should occur.

Plainly, however, any wrathful expressions which Mr. Jentz might utter were of little assistance in cooling a hot box, and so he returned to his seat and tried vainly to conceal his anger.

When the train again got under way, Mr. Jentz glanced at his watch, and the light of renewed hope came into his eyes.

So far as he could determine, fully fifteen minutes had already been lost; but, as he had still some distance to travel before reaching Arlington Junction, it was possible that at least the necessary five minutes of time could be made up.

For perhaps an hour nothing more occurred to ruffle Mr. Jentz's feelings; but at the end of that period the train again stopped suddenly, far from any town.

This incident, occurring at a moment when Mr. Jentz's nerves were far from being in a tranquil condition, precipitated him into a state of great mental excitement, and he again hastened to the front platform to investigate the cause of the delay.

"What—" he began, then paused. The conductor and brakeman were exchanging significant glances. The brakeman was laughing.

"What's the matter with you fellows?" roared Mr. Jentz suspiciously. "Are you laughing at me? What?"

"Not exactly," replied the brakeman. "Only I bet the con you'd be the first passenger to rubber. I won."

"Indeed?" Mr. Jentz was almost fuming. "And why shouldn't I 'rubber,' as you call it? Why shouldn't I be anxious about these numerous and unnecessary delays? I've got to catch a train at Arlington Junction, and we're late now."

"You seem to be very greatly excited," ventured the brakeman soothingly. "You must have an important engagement to keep."

"I have," snapped Mr. Jentz pompously. "A very important engagement, indeed."

"Weddin'?" asked the brakeman slyly.

Mr. Jentz's mouth opened like a fish gasping for breath; then it closed again with a snap, and his face turned scarlet.

"You—you—" he began, breathing heavily; then his wandering vision beheld a number of freight-cars standing at the bottom of a steep grade ahead.

"What — what's those cars doing there?" he finished.

"Too heavy a load," replied the train-

man laconically. "Had to double the hill."

"Double the hill?" Mr. Jentz was plainly puzzled. "I do not understand."

The brakeman regarded Mr. Jentz with infinite disgust.

"They couldn't make the grade," he explained, "and had to cut the train in two. They'll be back after the rest in a few moments."

"Oh!" A great light broke in upon Mr. Jentz's understanding, then his brow darkened. "And we have to wait here until they do?" he demanded.

"Reckon so," replied the other. "There seems to be only one track."

"It's an outrage!" Mr. Jentz broke forth, all his pent-up indignation overflowing. "A monstrous outrage!"

He got off the steps and paced back and forth, his eyes downcast, his pudgy hands clasped behind his back.

"That's nothin'," rejoined the brakeman flippantly. "If you were a railroader, you'd get used to it."

Mr. Jentz turned suddenly and glared at the trainman.

"If I were a railroader," he ejaculated, "I'd run my train on time, or I'd know the reason why."

"And if I were a passenger," retorted the brakeman calmly, "I'd keep my seat and not get excited over trifles. It doesn't do any good."

"No," admitted Mr. Jentz sorrowfully; "it doesn't do any good. When trainmen are determined to miss connections, you can't say or do anything to make them change their minds."

And with this sarcastic rejoinder, Mr. Jentz climbed laboriously aboard the train and sought sanctuary in his seat.

After many moments—an age it seemed to Mr. Jentz—the train got under way again. He assumed a morose attitude and glared at his fellow passengers.

When at last he reached Arlington Junction, he disembarked hurriedly, hastened into the waiting-room, and presented himself at the ticket-window.

"Has the local gone West yet?" he asked excitedly.

"Yes, sir," replied the agent quietly. "It has. It left about five minutes ago."

For a brief instant a sulfuric explosion trembled upon Mr. Jentz's lips, but it did not materialize. A woman and a babe occupied an adjacent seat, and the woman appeared as though she were shy and easily frightened.

Heroically Mr. Jentz controlled his deep emotions and fixed his burning eyes upon the agent.

"Where," he inquired in a quavering voice, "can I find a secluded spot where eye may not see nor ear hear? I want to swear."

"Don't," admonished the agent sympathetically. "Sit down and save your breath. The limited will be along in a few minutes."

"The limited?" Mr. Jentz was breathing more easily.

"Yes, sir. It leaves here only a half-hour behind the local."

For exactly three seconds Mr. Jentz regarded the agent in calm and undemonstrative silence; then his lips parted in a smile, the smile broadened to a grin, and he once more pulsated with the joy of living.

When the limited arrived, Mr. Jentz boarded the rear Pullman. He thought he could disembark therefrom at Arlington in a much less conspicuous manner than would be possible from one of the forward cars.

And presently, when the train whistled for Arlington and slowed down for the station, Mr. Jentz, suit-case in hand, stepped out upon the rear platform. He hoped he would be unnoticed by any one; he trusted that the crowd on the station platform would be small; that there would be none there who knew him.

He realized that secrecy must mark his movements; that at all hazards he must, so far as possible, avoid the public eye.

When, therefore, the train stopped and Mr. Jentz surveyed with anxious gaze his surroundings, he drew in his breath with a loud noise. The station platform was black with a gay and enthusiastic crowd of men, women, and children, and all eyes seemed fixed upon him.

Flags were waving, and at one corner of the station building a band was playing "Hail to the Chief"; although its strains could scarcely be heard above the cheers of the multitude when they beheld the portly form of Mr. Jentz.

Presently, from out the throng, Mr. Jentz beheld, pressing its way toward

him, what appeared to be a reception committee.

The members of the committee caught him by the arms; they fairly pulled him from the Pullman; they grasped his hand in theirs and shook it till it ached.

Then, with the assistance of several policemen, who drove back the surging crowd, they escorted him to waiting carriages.

And all the time Mr. Jentz was so overcome with surprise that he could not utter a word. Vainly he tried to think what it all could mean; vainly he endeavored to fathom the mystery of this unexpected and most demonstrative reception.

And then it dawned upon Mr. Jentz's comprehension that a procession had formed; that it was marching up the main street of the town; that the top of the carriage in which he was seated was down so that every eye might see him; that the three other occupants of the vehicle were total strangers to him, although, from their appearance, prominent residents of Arlington.

Mr. Jentz felt the chills run up and down his back; he felt his temples burning as though red-hot coals were pressed against them. On every side the populace seemed bent upon doing him homage.

He felt that upon any other occasion, under any other circumstances, he could have enjoyed himself immensely, but now, when secrecy was so desirable—Heavens!

Presently he became aware that the carriage had drawn up beside the town square; that he was being escorted to a platform about which another large crowd had congregated.

He drew a hand across his eyes and pinched himself, then allowed his bewildered vision to rest upon a well-groomed individual who had advanced to the front of the platform and was addressing those assembled.

"Fellow citizens," he was saying. "I will not take any of your time this afternoon. You did not come here to listen to me, but rather to harken to the eloquent words of our distinguished visitor."

Mr. Jentz gasped. Cold perspiration broke out all over him.

"Ladies and gentlemen," the other continued, "it is my great pleasure to introduce to you our next Governor."

A wild cheer swelled up from the crowd. The well-groomed gentleman had turned and was looking at Mr. Jentz.

Like one in a dream, Mr. Jentz found himself trying to rise, but his knees forsook him, and he sank back weakly in his chair.

"Gentlemen," he exclaimed desperately to those about him, "you have made a mistake—a very amusing mistake."

He attempted to laugh, but the effort was a feeble one. He could feel ten thousand eyes upon him. "I am not your candidate for Governor. I am not a candidate for any office. I am only—"

He paused suddenly. He must not reveal his name. His large business interests had made it a familiar one in Arlington. He must conceal his identity in the presence of what appeared to be the entire population of the town.

"Who are you?" "What's your name?" "Why did you attempt to impersonate the Governor?" A dozen excited persons seemed speaking at once.

Mr. Jentz groaned inwardly. He was not feeling in the best of spirits.

"Gentlemen, gentlemen," he expostulated. "I came to Arlington for a certain purpose; a legitimate purpose, I assure you, but one which will not permit of my revealing my identity at present. I was not trying to impersonate anybody. I did not force myself upon you. If you will remember, you dragged me from the train and compelled me to accompany you. I am sorry if I resemble the next Governor, but I mean no harm by that. Had it not been for the perverseness of trainmen on another road, I should have arrived here on the local, and this unfortunate incident would not have happened. I have not seen your candidate. I do not know where he is or why he failed to come to Arlington—"

The next few moments were moments of great embarrassment to Mr. Jentz. He managed to get off the platform, but was painfully conscious of suspicious glances and derisive words.

A block distant he paused to again dry his damp brow. "Heavens!" he exclaimed fervently.

Then he turned and gazed down the street toward the home of his fiancée.

"Heavens!" he repeated. "I wonder if she was there!"

INDUSTRIAL ROLL OF HONOR.

More Chapters in the Never-Finished History of Self-Sacrificing Heroism.

Police Duties Need Men, but Bring Honors.

AS well as the regular recognition of the police authorities, the policemen of New York who have been fortunate enough to save people from drowning at the risk of their own lives, receive medals of recognition from the United States Life-Saving Corps. This year thirteen medals were distributed, and of two other men who had earned medals, one died in the meantime, and the other was absent on sick leave

The winners of silver medals were: Patrolman Joseph Heckley, Patrolman John F. Murphy, Patrolman Alexis Kleinmeir, and Patrolman John Lynch. The recipients of bronze medals were: Patrolman Thomas J. Craddock, Patrolman James Travis, Patrolman Stephen Crowley, Patrolman Thomas O'Loughlin, George Cadger, doorman of the Bath Beach station; John J. Noonan, Henry L. Lobdell, and James Dugan, of the traffic squad, and James Hughes, of the harbor squad.

The patrolman absent on sick leave was Frank A. Wolf, who receives a silver medal. Lieutenant Callahan was to receive a bronze medal, but he died of heart-failure some weeks before. Commissioner Bingham distributed the medals, and learning that John J. Noonan, of the traffic squad, had in the meantime become the father of twins, he called him forward, shook hands with him, and hoped that there would be at least one good policeman in the two.

Youth Whose Pluck Was Backed by Strength.

FROM Black Lake, Michigan, comes another story of youthful heroism. A Chicago boy of fifteen years rescued from the waters of the lake his father and a woman whom the father had made an ineffectual attempt to save.

Arthur Wakeford, the father, saw the boat of Mrs. Frank G. Mason capsize and swam to her rescue.

He reached her as she came up the second time, but the frantic woman flung her arms around him and dragged him down. Mr. Wakeford was helpless, when his boy, Addison, who was rowing near by, dived into the water.

He succeeded in releasing his father from the grasp of the woman and got him into the boat. He then went after the woman, whom he also managed to drag into the boat.

When he got them to shore the man was in the worse plight, and it took considerably longer to bring him out of danger than it did to restore the woman whom he had tried to save.

Blind Devotion, but Instinctive Heroism.

BECAUSE she stayed to save her baby sister, Carmella Landria, a little Italian girl, of New York, was crushed to death by a trolley car. The only details that could be gathered came from the distressed motorman who had narrowly escaped a lynching from a crowd of infuriated Italians.

It seems that the little girl, twelve years old, was taking her little twenty months-old sister across the street. The little girl had toddled on a few feet in advance, and was half-way across the tracks, when a car was suddenly seen to be bearing down on her.

The motorman flung on the brakes, but he was too near. Instantly the older sister dashed forward, practically diving under the car, and pushed her baby sister forward.

Retreat for her was, of course, impossible. The car caught her and bore her under its wheels, and when she was extricated life was extinct.

The baby was caught, also, but only one foot was injured, and she will recover.

Quick Witted and Prompt at the Age of Five.

DETERMINATION and pluck were written all over the feat performed by the five-year-old daughter of William Williamson, who lies near Findlay, Ohio.

The child, with her older sister, aged seven, and several other children, was playing around a bonfire, when the older girl's clothing caught fire.

The rest of the children ran away in a panic, and the seven-year-old girl herself was quite helpless with fright. The little one was anything but helpless.

First she tried valiantly to smother the flames with her tiny hands, but in this she was unsuccessful. Then she seized her sister and dragged her to the yard pump, pushed her under the spout, and pumped water over her.

This was effective, and although the girl was badly burned, her life was saved. The younger girl was badly burned about the hands, but happy in the outcome of her feat.

Great Bravery of a Rescued One.

IF the matter is carefully weighed, it will probably be conceded that the most heroic part in a certain rescue at Bath Beach recently was played by one of the rescued ones. Two young boys, Joseph Heck and Edward Frost, ten and twelve years, respectively, had got into a rowboat while paddling around on the beach, and were so intent on their play that they did not notice that the boat was drifting from the shore until it was three hundred feet away.

There were no oars in the boat, and neither boy could swim. They called loudly for help, but the crowd on shore thought it was part of their play, and their only notice was to laugh and jeer.

Soon, in his panic, Heck upset the boat. Frost managed to grab the bottom, but Heck was pitched several feet away, and, in spite of all his struggles, could not reach it. Then Frost, unable to swim, did the heroic thing.

On the off-chance that he would be able to struggle back to the boat, he let go his safe hold and floundered to his friend. But Heck had lost his nerve, and his struggles soon had both boys in the gravest peril.

Just then two young men on the beach, with more intelligence than the others, saw the plight of the children, and swam out to their help, getting them safely to shore. One of the young men, John Russel, is said to have thirty lives to his credit.

Fire Made and Nearly Killed a Hero.

POLICEMAN PHILIP BERNSTEIN, of Brooklyn, came pretty near to being a dead hero after saving a man and woman in a Brooklyn fire, and but for the efforts of a fireman this would assuredly have been his fate.

When Bernstein discovered the fire at 799 Flushing Avenue there was no time to give an alarm before attending to the inmates. The policeman clambered on the roof of a shed and broke into the burning building by a second-story window.

There he found Frank Brenner and his wife Teresa, both of them sixty-five years of age, lying on their bed stupefied by smoke. He first took the woman on his back and climbed out onto the shed with her, and then returned for the old man.

He again returned and assisted a boarder of the Brenners to safety. He was pushing his way through the flame and smoke-filled house when the floor on which he was walking collapsed and he was thrown into the hall below, being rendered unconscious by the fall and the smoke. In the meantime somebody had given the alarm and a fireman dashed into the blazing house and rescued Bernstein from his perilous position.

Dwight's Pluck Gives Him a Long Swim.

WITH what is described as a reckless disregard of his own life, Lester S. Dwight, night wire chief of the American Telephone and Telegraph Company, New York, saved the life of a young woman at Bath Beach some weeks ago.

Dwight lives in a forty-foot sloop off Bath Beach. He had boarded a small boat at Captain's Pier with the intention of puling out to his sloop, when he saw a young woman run to the end of the pier and hurl herself into the water.

Instantly he jumped in after her, though the tide was running strongly out and the night was pitch dark. A moment later, the water having cooled the enthusiasm of the young woman, she began to shout lustily for help, and by the time Dwight had reached her she was so intent upon living that she clutched him around the neck, to the danger of both.

He fought her off roughly, and although he is a strong man, he had to use all his strength to subdue the fear-crazed woman.

Dwight's strength was fast giving out, when he bumped against the side of a small boat, which he managed to grab. For half an hour he had to cling to the boat before his friends, directed by the woman's screams, could get help to him. He refused medical attention, but the woman was taken to the Coney Island Hospital, fortunately suffering nothing worse than exhaustion from immersion.

THE COURAGE CLUB.

BY JOHNSTON McCULLEY,

Author of "Richard Hughes—Railroad Detective," "At Bay on the Limited," "Shipmates With Horror," Etc.

Nos. 5 and 6 Parks Conquers His Peril, and Though Druke Fails to Find Himself, He Graduates from the College of Odd Jobs.

VII

SCARCELY had the clock struck nine thirty that evening, when Parks, accompanied by the captain, left the precinct station and made his way uptown. The captain had promised him a speedy death should he attempt to escape. He did not ask Parks where they were going, but journeyed with his prisoner by trolley, transferred to another line, and stepped to the street in a fashionable part of town.

"What are you going to do up here among the silk-stockings?" demanded the captain.

Parks smiled and consulted his watch.

"You shall see soon," he replied. "It is five minutes of ten, and we have only a block to go."

Presently Parks turned in at the door of a large house. The captain followed, wondering. Parks stepped to the door and rang the bell. Before his hand could drop to his side the door was opened by a young man in evening dress who fairly caught Parks in his arms. Behind him were other men in evening dress, who crowded close and asked a multitude of questions.

"Just a moment," said Parks, pushing them away from him and laughing. "I am under arrest for murderous assault and have been refused bail. Captain Deek here is guarding me. Allow me to present him. Captain Deek—Mr. Howard Rockington!"

"Rockington!" gasped the captain. "Not—"

"Yes," muttered Rockington, reaching for the captain's hand. "I'm the millionaire, if that's what you mean. Come in, captain."

"But this man—this teamster—" The captain indicated Parks.

"Don't you know him?" Rockington asked.

"He gave his name as Walter Parks."

"Well—er—that isn't exactly his true name, you know. His real name is Walter Parker!"

"Not—"

"Exactly!" said Rockington. "*The* Walter Parker!"

"But—" began the captain.

Rockington laughed.

"We'll go into the other room and explain," he said. "Come."

When they were seated in the other room, and the captain was thankfully sipping a glass of wine, Rockington explained.

"Have you ever heard of the Courage Club?" he asked.

"I have heard something of such an organization," the captain admitted.

"All the gentlemen present are members," continued Rockington, "with the exception of yourself and Mr. Parker. Parker will be a member, I expect, within an hour. Some time ago, you will remember, Herr Burgher, the eminent scholar, declared in an article that the rich young men of America were moral and physical cowards; that they were unable to go

into the world penniless and make their own livings; that they were wanting in courtesy to women, and a number of disagreeable things like that.

"We took exception to Herr Burgher's statements, and the Courage Club was formed to prove them false. Every applicant for membership is compelled to undergo a test for one month. Mr. Parker has finished his test to-night.

"He had orders to leave his home without a cent in his pocket, obtain a position of some sort, and exist for a month on what he earned. He was not to appeal to friends or relatives for help; he was not to disclose his real identity; he was to show courage if an opportunity presented itself, and he was to be courteous to women at all times."

Parker smiled.

"I got in trouble by going to a woman's aid," he said. Then he turned to the captain. "You understand now," he continued, "why I said I could get bail after ten o'clock to-night. My test would be ended then, and I could use my own identity and the influence it exerts."

"If I had only known you," began the captain.

"It was against the rules of the club for me to tell you my real name."

"If you had called your lawyer—"

"That would have been contrary to the club's rules also."

"I see," said the captain.

"If you will remain in this room, captain," said Rockington, "while we listen to Mr. Parker's story and admit him to membership in the club if he deserves it, I'll pledge you my word of honor that I'll return your prisoner to you afterward."

"It isn't necessary," said the captain. "Mr. Parker may go on his own recognizance."

"But I am charged with murderous assault," protested Parker.

"I pray you will not feel annoyed. I'll see that you are not bothered. Perhaps—perhaps I have been too hasty!"

"But you think I am a smooth thug, you know," said Parker, smiling.

"I hope you will forget anything I may have said. I—I am sorry for what has occurred."

"Just one thing," said Parker. "Are you saying these things because I am a rich man, or because you know I was unjustly accused and held?"

"Because," faltered the captain, "you were unjustly accused and held."

"Thank you," replied Parker. "You'll know where to find me if I am wanted."

"Yes, sir. But I think you'll not be wanted, sir."

"As for Miss Adley's case. I'll be on hand to testify," continued Parker to the captain, "and if the thug who assaulted her gets his just deserts, I may forget what I know concerning the part the police played in the affair. But if there is the least hint of an attempt to let him off easy—"

"He'll get his just deserts," said the captain. "I'll bid you good evening, gentlemen."

"Are you the chap," Jack Adley demanded, "who helped my sister out of that scrape?"

"I am," Parker answered. "And I'd like to be properly introduced to her as soon as this club is done with me. I've never met her, you know.

"She came back from school just as I went to Europe; and just as I returned from Europe I was detailed on this Courage Club test. I—well, I want to meet her!"

"I'll see that you do!" said Adley.

The captain, weakly cheerful, took his departure, and Parker turned to the men who were soon to call him a fellow member.

"Well, I'll be shot! Here's my most intimate friend, Richard Druke. Dick, will you tell me how you could be a member of the Courage Club without my knowing it?"

Rockington laughed. "There are many things happen that the novitiates of the Courage Club do not understand," he said, "as Druke, here, can testify. He was admitted last night, and his conduct well deserved it, as you will see from the Record of the Club after you have been admitted."

Druke grinned, and looked embarrassed. "Well," he said, "I don't suppose I'll ever get over the 'goat' feature of that adventure, but when Parker reads the record I think he'll agree that it was anything in the world but a joke to me at the time."

Parker did read the record, and, sub-

stantially—though the modesty of Druke somewhat spoiled the formal narrative—this is the story he read.

Of the Story of Druke's Failure to Find Himself.

I.

MR. CHARLES ELLSWORTH sat on a park-bench, his head bowed in his hands. The clothes he wore were indicative of poverty, there was a stubby beard on his face, and his hair was snarled and unkempt.

It was five o'clock in the morning of a beautiful summer day. Ellsworth had occupied the bench since ten o'clock the evening before. He was aware of the fact that the light of day brought its disadvantages, such as gardeners and park policemen. It was undoubtedly time for him to move; but he had no particular place to go.

Hunger gnawed at him. He wanted to wash his hands and face, and finally managed to accomplish this feat at a fountain when there was no one about, drying them on a bunch of grass he tore from the lawn. Then he shuffled down the walk toward a side entrance. He knew from experience that the main entrance was to be avoided at that hour of the morning; for the officer stationed there had a knack of asking searching questions of ragged gentlemen who looked as though they had spent the night on a bench.

He passed through the side entrance safely, and started down the street. He was hungry; he had no money with which to purchase food; and, for certain reasons, it was denied him to beg. As he left the street which ran alongside the park and turned into another, he was joined by another man, whose appearance indicated that he, too, had spent the night on a bench.

"What suite did you have?" this man demanded, hurrying to Ellsworth's side.

Ellsworth smiled at the other's optimism.

"I fail to remember the number," he said.

"There's one thing I don't like about this open-air hotel," the stranger commented. "It doesn't serve meals, and you have to get out and hustle for your breakfast."

"I've noticed that," remarked Ellsworth.

"What particular café are you going to patronize this morning?"

"My physician says I should not eat of heavy breakfasts," replied Ellsworth, smiling grimly. "He declares that, at times, it is beneficial to go entirely without food until the day is well advanced."

The other man ceased to smile, and regarded Ellsworth searchingly.

"It isn't as bad as that, is it?" he asked. "Are you down and out? Haven't you the price of a meal?"

"I haven't the price of a toothpick," admitted Ellsworth.

"Are you hungry?"

"Am I? Say, I'm used to three square meals a day—three big, fat, luscious, well-done meals per day. Or, at least, there was a time when—"

"I know," replied the other. "All of us can say that there once was a time."

"I could eat anything that had the slightest resemblance of food," said Ellsworth.

The other man took Ellsworth by the arm.

"My name's Hodges," he said. "I like you. I'm going to whisper something in your pearl-like ear. Bend your head this way. That's right! Now, listen! I have, in my left-hand trousers-pocket, a quarter of a dollar!"

"No!" cried Ellsworth.

"Yes!" affirmed Hodges. "I couldn't sleep last night because I was afraid some one would touch me for it. I don't want to lose another night's sleep, so suppose we go to the nearest restaurant and eat twenty-five cents' worth of what we can get the most of for the money."

"I couldn't think of it—" began Ellsworth.

"See here!" said Hodges. "You're a green one at this down and-out business. You don't understand. It needn't hurt your confounded pride at all. I mean I'm making you my pal, and we're partners from now on; and when I have money, half of it is yours. When you have money, and I'm out, you'll have to split with me. See? It's a straight business deal. I'm not *giving* you anything.

You're not getting any *charity*, if that's what bothers you. Come on and eat."

"Thanks!" said Ellsworth. "I will."

A few minutes later they were sitting at a greasy table in a restaurant of questionable cleanliness. Before them was meat, soup and bread, and black coffee.

Ellsworth, who had in his life eaten many excellent dinners, did not turn up his nose at the food before him. Hodges, who had also seen more pleasant days, ate with relish.

"Anything on to-day?" he asked, looking across at Ellsworth.

"No."

"Looking for a job?"

"Sure."

"So am I. We'll get through here and then go down to the college."

"College!" gasped Ellsworth.

"Sure! You must be green! Don't you know about the college? It's a certain saloon not far from here. You can't find it unless you're wise.

"It's the place to go when you're down and out and simply *must* have a job. There's always something doing there. The pay's good, but sometimes the jobs are shady."

"But—you said college."

"Sure! That's what we call it—the College of Odd Jobs."

"I see!" said Ellsworth. "But I don't want to mix up in anything shady."

"Don't be afraid, son. We'll just go down and look over the ground. If there isn't anything that suits us, we'll walk out again. They can't boss us around. We don't *have* to take a job! Why, man, we've had a meal!"

II.

THE College of Odd Jobs was also an odd college of jobs. It was a saloon, as Hodges had declared, in a blind-alley, where you knocked three times at a half-hidden door and then walked through a dark hall before emerging into the bar-room.

When Ellsworth and Hodges arrived, there were but a few men sitting at the tables, the most of them engaged in earnest conversation. Hodges nodded to the bartender, and was invited over to have a drink. Ellsworth was included in the invitation.

"My friend and I," began Hodges, "have had a meal this morning, and are feeling like sons of wealth. But if you know of anything easy that holds out a promise of great reward, we don't mind soiling our hands with a little work just for the sake of the exercise."

"So?" said the bartender. "Well, do you know Gordon?"

"I know he's the craziest crook in town!" exclaimed Hodges.

"He has a deal on that's straight," continued the bartender. "He wants a man or two. He's in one of the rooms now. Shall I call him out?"

"Sure!" said Hodges. "We'll hear what he has to say!"

The bartender walked across the room and knocked on a door. It was opened immediately. There was a short conversation, and then there stepped into the main room a typical prosperous crook, dressed in the approved fashion for gentlemen of that sort, his silk hat, loud apparel, large diamond stud, red face, and shaggy brow advertising him for what he was.

He looked at Hodges and Ellsworth searchingly for a moment, then beckoned them to step into the little room. Closing the door and seating himself opposite them, he continued his inspection; then, apparently satisfied, he spoke.

"Want to earn some money?" he demanded.

"Depends on the job," replied Hodges.

It was evident that Hodges was not a stranger to such dealings, and Ellsworth wisely left the entire matter in his hands.

"This job is legal enough in its way," said Gordon, leaning over the table and speaking in a hoarse whisper. "It takes a little nerve and a mighty quiet tongue."

"My friend and I have plenty of nerve and know how to keep our mouths shut," said Hodges.

"This is the deal," said Gordon. "A certain young millionaire has it in for another young millionaire. The second gent is trying to do a certain thing; the first gent wants him to fail. The second gent is—to be taken care of until after a certain time. He isn't to be injured or mistreated. But he's supposed to be at a certain place at a certain time, and the first gent doesn't want him to be there."

"Wedding?" asked Hodges.

"No," smiled Gordon.

"Does the gent you want detained drink?"

"He does not get foolishly drunk, if that's what you mean, and you'll not be able to hold him by giving him liquor. But you ought to be able to carry out the scheme without getting into trouble. It looks easy to me."

"What about it?" asked Hodges, drawing one eye down into a wink.

"The first gent supplies me with a certain sum if I succeed. I'm too busy to take care of the second gent myself. You two men take the job, and I'll give you fifty dollars each now for expenses and five hundred between you if you succeed. But you'll have to play fair. You know me! If you take my fifty dollars, you have to do your best to succeed!"

"See here!" said Hodges. "How are two tramps like us to get our hands on a young millionaire and keep him out of sight unless we hit him on the head with an ax? As a usual thing, we don't chum with millionaires."

"That part will be easy enough," said Gordon. "Do you take the job?"

"Tell us all about it," said Hodges. "If it suits, we'll take the job. If it doesn't, we'll keep mum about what you tell us. You needn't be afraid."

"I'll tell you," said Gordon. "Did you ever hear of the Courage Club?"

"Can't say that I have," said Hodges.

"Well," continued Gordon, "a lot of fool young millionaires in town have formed what they call the Courage Club. Before a man can become a member he has to go out for a month and make his own living, and while he's doing it he has to show nerve if he has the chance, and be kind and gentle to women, and a lot of rot like that. They're doing it because some German author said young millionaires of America were sissy-boys.

"This second young gent I mentioned is somewhere in town, dressed like a tramp, trying to earn his own living for a month. In order to qualify for membership, he has to report to the club at a certain hour on a certain night. If he doesn't, he fails to become a member. See?

"The first young gent is sore on the second young gent. He doesn't want the second young gent to become a member. If the second young gent fails, it will be noised abroad, as they say, and may reach the ears of a certain young lady in whom both young gents are interested."

"Oh, I see!" said Hodges.

"You are to find this tramp millionaire, and keep him from reporting at the appointed hour. You ought to be able to spot a millionaire in disguise in a minute."

"What's he look like?" Hodges asked.

"Six feet tall, dark hair, dark eyes, and that's about all I can tell you. He looks like lots of other men. You'll have to use your wits to find him."

"How long do we have to take care of him?"

"This is Tuesday morning. He is to report to the Courage Club at ten o'clock Friday night. You see, your time is short. You'll have to hurry. One minute after ten o'clock you can let him go. See? But don't hurt him, because I promised there'd be nothing of that sort done."

"What's his name?" demanded Hodges.

"His name is Richard F. Druke."

"I've heard of him," said Hodges.

Ellsworth leaned across the table, and looked directly into Gordon's eyes.

"And the other gent—the one who wants this Druke detained—what is *his* name?" Ellsworth asked.

Gordon smiled.

"I can't tell you," he said. "And it doesn't make any difference, because you'll get your money just the same. I'm a man of my word."

"I'm willing to take the job," said Hodges, "if my friend "

"I am willing," interrupted Ellsworth.

Gordon gave each of them fifty dollars in bills, and instructed them to report to him each evening. Then he called for drinks, and bade them start on their mission.

Hodges led the way through the alley to the street.

"How's this for a snap?" he asked.

"It isn't such a snap as it looks to be," replied Ellsworth.

"Why?"

"You'll not succeed."

"Don't you think we'll find him?"

"Yes—but not hold him!"

"Why?"

"That's just my opinion."

"It's easy," said Hodges—"easy! Just follow me!"

III.

Tuesday evening, Wednesday evening, and Thursday evening, Hodges, accompanied by Ellsworth, journeyed to the College of Odd Jobs, and reported to Gordon that they had not found the slightest trace of Richard F. Druke.

On Thursday evening Gordon grew somewhat furious.

"You *must* find him!" he cried. "I stand to lose a good fee if you don't! I tell you he's somewhere in the city, dressed like a common laborer and trying to make his living. Can't you spot a millionaire made up for an honest workingman? Every move ought to give him away. Watch all the cheap lodging-houses."

"We have," said Hodges. "And we've made the rounds of benches in the parks, and peeped into jails, and kept our eyes and ears open. And we haven't heard of a tramp that acts like a millionaire, and we haven't seen one that looks anything like a millionaire."

"You *must* find him!" repeated Gordon emphatically. "See here! I said I'd give you five hundred between you if you succeeded. I'll make it six hundred—that'll be three hundred each."

"We're on the square!" declared Hodges. "We're not making a play for more money. Five hundred is enough—*but we can't find him!*"

"Six hundred I've made it, and that goes," said Gordon. "You go out again and get on the job! Remember, the time is up at ten o'clock to-morrow night. You must find him before that time and keep him a prisoner until after the hour of ten. It will be all the easier now—you'll not have to hold him so long."

"Well, we can try again," said Hodges.

Ellsworth spoke up.

"I know a little about this business," he said. "I don't believe I've mentioned it before, but—I *know* this man Druke."

"You know him?" gasped Hodges and Gordon together.

"I've seen him lots of times," said Ellsworth.

"What club gave you a job as a waiter?" sneered Hodges.

"I'm telling you the truth. I know him. And I guess there are a few cards that haven't been played yet. You be here at ten o'clock to-morrow night, Gordon. You wait here until Hodges and myself come. We'll be here soon after ten. I'll show you something that'll startle you."

"You know where to find him?" asked Gordon.

"Yes."

"Why haven't you done it, then?" demanded Hodges.

"Never mind why I haven't. You be here at ten to-morrow night, Gordon, and wait for us. I don't know how much that man was going to pay you for holding Druke, but I guess you'll not lose the money whether Druke is found or not."

"You talk mighty funny," said Gordon. "I don't like it."

"You'll be here at ten?" asked Ellsworth.

Gordon looked at Hodges, and the latter gave the former a glance which meant that he would see no underhanded tricks were played.

"Whatever you do, and wherever you go, I suppose Hodges will be with you," Gordon said.

"Certainly," replied Ellsworth. "And you needn't be afraid of anything!. I'll not try any dirty work! You be here at ten, and you'll be amused."

"I'll be here," said Gordon.

Ellsworth and Hodges left the College of Odd Jobs, ate dinner at a convenient restaurant, and spent an hour walking about the streets. Hodges was naturally inquisitive. Ellsworth wouldn't explain.

"You said you knew where to find him," Hodges complained.

"I do. But we're not going to find him."

"Not at all?"

"Not at all," replied Ellsworth.

"And lose three hundred apiece? That's not being the good pal!"

"You'll not lose your three hundred, and you may get more," said Ellsworth.

"You mean you're going to hold up this man Druke for more by putting him wise to the plot?"

"Not exactly," said Ellsworth.

"I give you up!" exclaimed Hodges. "But are you sure I'll get that three hundred?"

"Absolutely sure!"

"No chance of anything spoiling it?"

"Not the least chance."

"You may be crazy," remarked Hodges, "but I'll take your word."

They spent the remainder of the evening loitering about town, slept well, and loafed all day Friday. It was evident that Hodges was losing faith in Ellsworth. He asked him repeatedly whether there was any chance of losing.

As they sat at dinner that night Ellsworth issued his orders.

"We're going up to a swell part of town," he said. "We're going to the apartments of Howard Rockington, another young millionaire. He's the president of the Courage Club. This man Druke is to be there at ten o'clock. You heard Gordon say that."

"But what are you going to do?" Hodges demanded.

"Just leave that to me," said Ellsworth.

Ten minutes before ten o'clock they stood on the corner nearest the apartments of Howard Rockington, in the shadow of a high wall, and watched carriages and automobiles drop their passengers before Rockington's door.

"It is five minutes of ten," said Ellsworth finally. "I'm going in that place —where the others are going. You wait for me here. I'll not be over half an hour. Be ready to hurry back to the College of Odd Jobs with me as soon as I come out."

"If you need any help—" began Hodges.

"There's not a particle of danger," replied Ellsworth. "I tell you I know this man Druke."

Hodges watched from the shadow of the wall as Ellsworth walked quickly down the street, up the steps, and pulled at the bell. In an instant the door was opened, and Ellsworth stepped inside.

IV.

HOWARD ROCKINGTON stopped in the middle of a story he was telling as the valet touched his arm.

"Well?" he questioned.

"Man to see you, sir. He says it is very important."

Rockington excused himself, and stepped into the hall. The other members of the Courage Club talked on, retelling their own experiences, wondering whether Druke, the latest candidate, would have a thrilling tale to relate. Presently Rockington returned.

As he resumed his seat he appeared thoughtful. He took little interest in the conversation. Finally he looked at his watch.

"One minute of ten," he said. "I wonder—"

The door was thrown open.

"Am I in time?" some one asked.

"It's Druke!" cried the others, springing to their feet and crowding about him.

After congratulations were over, the men settled back in their chairs to hear Druke's story.

"Before I tell you my experiences," he said, "there is a little matter that demands attention. I want to go away for perhaps an hour, and I want Rockington, Fred Gale, and Bulkand to go with me—or, rather, follow me. I'll give my instructions to Rockington, and he will tell the other two what to do. If the rest of you will chat and smoke and play cards until we return, I promise you a sensation."

Druke took Rockington to one side and talked to him for several minutes.

Then he left them and went into the street.

V.

HODGES, waiting under the wall, saw Ellsworth come from the house and walk toward him. He stepped out to meet him

"Come on," Ellsworth said. "We must hurry and get to the College of Odd Jobs as soon as possible. I'm going to hail that cab."

"All right, if you've got money to spend on cabs."

Ellsworth did not reply, but hailed the cab, gave the driver an address, and they got in. They whirled through the streets rapidly, and stepped from the vehicle at the corner nearest the college. An automobile was following less than a

block behind them, but neither gave it any attention.

Gordon was waiting for them in one of the little rooms, an empty bottle before him. He looked up angrily as they entered.

"It's nearly eleven o'clock," he said. "I've waited here until I'm tired. Now, out with your story. What is it you have to tell? What have you done? Where does the money come in—or does it come in?"

Ellsworth seated himself by the table, and motioned for Hodges to do the same.

"You wanted us to find this man Druke and prevent him from showing up at the headquarters of the Courage Club at ten o'clock to-night; is that it?" he asked.

"That was the scheme," replied Gordon.

"I knew the moment we started out on the job that we would never do it."

"You knew? Why?"

"That doesn't matter just yet. What I want to know before I go on with my story is, who was the man that offered you money to get Druke?"

"I'll not tell you!"

"But I insist on knowing," said Ellsworth.

"It doesn't make any difference. He wasn't to be mentioned in the deal. What right have you to insist?"

"Every right in the world!" cried Ellsworth, bringing one fist down upon the table. *"I am Richard Druke!"*

"What!" cried Gordon and Hodges, in a breath.

"And you hired me to capture and detain myself!"

"Eh?" gasped Gordon.

"And you gave me expense money to do it, and offered me more when it was done!"

"Of course—" Gordon began.

"Why didn't you tell me?" Hodges demanded angrily.

"Because I was on my word of honor to the Courage Club to exist for one month as Ellsworth, earn my own living, and under no circumstances to reveal my identity. Therefore I couldn't tell you I was Druke. Also, being in honor bound to report to the club at ten to-night, I couldn't conscientiously allow myself to be made a prisoner by myself. Isn't that good?"

"I don't see anything funny in it,' said Gordon.

"It isn't exactly funny."

"What do you mean by that?" Gordon demanded. "Do you think you'll hand me over to the police?" Gordon sprang from his chair, his face purple with rage. "Millionaire or no millionaire, you don't play double with me!"

"Sit down!"

"I'll see you—"

Druke drew a revolver quickly and held the muzzle at Gordon's breast.

"Sit down!" he ordered.

Gordon sat down.

"I have said nothing about the police," said Druke. "I have no intention of giving you into custody. But I want to know one thing—who paid you to have me captured and detained?"

"I don't like to squeal on a man."

"Was it Bulkand?"

"I don't—"

"Was it Bulkand?" demanded Druke

"Yes!"

"Ah! And now sit perfectly still, please, until I admit a few friends of mine. You neeedn't be alarmed, Gordon; they are not officers. They are members of the Courage Club. I just want to convince them of Bulkand's perfidy."

Druke arose and left the room. Gordon leaned across the table and whispered to Hodges.

"Think he's playing double?" he demanded.

"I don't know, but I don't think so. He's not that kind of a man."

"A lot you know about it!" scoffed Gordon. "You've been running around with him for a week, and haven't been wise! You're a—a—"

"You needn't get sassy!" exclaimed Hodges. "Dont I lose that three hundred? I'm just as sore as you! But it's a mighty good joke!"

"Joke!" sniffed Gordon.

The door opened again, and Druke entered, ushering in Rockington, Gale, and Bulkand.

"Now, Gordon," said Druke, "I want you to tell the truth. You were hired to find me and prevent me from reporting at the Courage Club on time to-night, were you not?"

"I was," answered Gordon.

"Who hired you to do it?"

"That man there!" said Gordon, pointing to Bulkand.

Druke turned to Rockington.

"Is that convincing?" he asked.

"It is."

"I wanted you and Gale to hear it," Druke continued. "And I wanted Bulkand to be here. This gives me as much pain as any of you. It is the first time, I believe, that any of the men in our immediate set have been guilty of such ungentlemanly conduct. Of course, we can do nothing, except where the Courage Club is concerned.

"Bulkand has not exactly committed a crime. But he has been guilty of such underhanded work that none of us can call him friend again. He has cast a shadow on an organization formed for the purpose of showing the world that we are honest, straightforward men. He has been untrue to the foundation principles of the club, and—"

Bulkand laughed heartily. "Stop him, Rockington; he's giving me an awful character!" he exclaimed.

"You can laugh at such a thing as this? You consider it a lark?" cried Druke.

Rockington stepped forward and put a hand on Druke's shoulder.

"There, there, old man; we'll all laugh," he said. "Can't you understand? Bulkand isn't half the villain you've painted him. We watched your progress during the month, and saw that, while you were having a hard time of it, you were not meeting with any experiences that were a test of physical courage. I got Bulkand to hire this man to capture you. We thought you might have a chance to fight your way out."

Druke gasped.

"Then—" he began.

"You owe your apologies to Bulkand," continued Rockington, smiling. "This man here was in earnest—he didn't know but that Bulkand was sincere. He'll get the money promised him, just as though he had succeeeded. And you have been given some exciting experiences, after all. Not every man is engaged to make a prisoner of himself."

"You fellows are making me dippy!" complained Gordon weakly.

"And the foundation principles of the club are preserved," added Rockington. "May we call Bulkand a friend?"

"It seems I have made an ass of myself," said Druke.

"Not at all. Your deductions were natural," said Rockington. "And now, if you have no objections, we'll return to club headquarters and allow you to recite. The other fellows are waiting to hear your story, remember."

Rockington led the way to the door. After him went Gale and Bulkand. Druke stopped midway and looked back at Hodges. Then he returned to the table and clasped him by the hand.

"The first time I met you," said Druke—"when you had never seen me before, and knew absolutely nothing of me, when I was hungry and tired and almost worn out, you divided with me all you had in the world. Do you think I am going to forget a thing like that? Here's something to keep you going for a day or two"—he handed Hodges some bills—"and in a few days I want you to come to me. Here's my card. Come to that address, and I'll have something to tell you, Hodges, old man, you'll never go hungry again, as long as I have plenty."

"Then, you're not—not sore, because—"

"Bless you, no!" said Druke. "You've helped me to graduate from the College of Odd Jobs!"

(The End.)

RAILROADS are like the human race. They have their stopping-places and their termini; but, unlike the human race they can make a return journey.

E. P. Day.

Riding the Rail from Coast to Coast.

BY GILSON WILLETS,

Special Traveling Correspondent of "The Railroad Man's Magazine."

THE Oregon Short Line runs from Green River, Wyoming, across the picturesque valleys and mountains of southern Idaho into Oregon. The boys of that line know the Indian and the prairie—the real tang of the West is in their blood.

They have lived close to danger, they have endured the hardships of the snow-bound, they have known real hairbreadth escapes. But their stories are touched with humor—in fact, in these later years they see only the bright side of their experiences.

No. 8.—TALES OF THE OREGON SHORT LINE.

McKinney Had to Deliver the Mail or Die. What It Really Means To Be Snow-Bound. The Wonderful Heroism of "Idaho Mary," and the Man Who Lost Both Feet.

AT the Oregon Short Line station at Butte, Montana, the train for Pocatello, Idaho, backed up to the platform ready to pull out. It was then only about 4 P.M. The train was not scheduled to leave till somewhere near five. Yet, in the accommodating fashion of Western trains, Number 11 had already opened her doors to traveling salesmen, Indian agents, redskins, squaws, cowboys, miners, and the writer, who had arrived early to have a chat with Phil Dreer, the railway mail-clerk.

My sole object in getting to the station early was to get from Phil some further details of the story of one George McKinney, a railroad man who had turned mail-carrier and had lost his life in the discharge of his duty. McKinney was frozen to death in the mountains—the foothills of the Sawtooth Range in Idaho—while carrying the mail from Atlanta to Rocky Bar.

"It was Christmas morning, 1907," said Dreer, "and though snow was falling with that sort of promise of evil to him who gets caught in it thereabouts, McKinney swore he wasn't in any doubt about getting to Rocky Bar that same night, and, therefore, didn't need anything more to eat than his usual cake of chocolate.

"McKinney always was the very darnedest of conscientious men. When he worked over in Oregon on the Short Line he was so conscientious in performing his duties as section-hand that he simply couldn't work as fast as other men. He insisted always upon giving the hand-car a little extra grease, and

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every spike he drove was given a few additional taps of the hammer. That meant delays that got on the boss's nerves—and McKinney was let go.

"That was in the spring of 1907. McKinney decided he weren't no railroad man—and he lit out for Idaho, fetched up at Atlanta, and got the job as mail-carrier. He always made the trip on foot, and on this particular Christmas morning some fellers over to Atlanta said to him:

"'McKinney, the wind and snow is all blizzardy. You better wait till tomorrer and let the mail go hang. Besides, this here's Christmas.'

"'If it's Christmas,' replied McKinney, 'then all the more reason why I should get the mail over to Rocky Bar to those folkses. They'll be wantin' their Santa Claus rememoratings.'

"And with that McKinney slung the mail bag and his snow-shoes over his shoulders and struck out toward the hills through a falling snow that was even then blinding.

Among the Missing.

"Well, that Christmas night, Rocky Bar miners and the like gathered in the 'Chamber of Commerce'—that's the saloon near the post-office—shook the snow from their clothes, hugged the stove, looked at one another significantly, and remarked: 'That mail man hasn't shown up yet.'

"The bartender of the Chamber of Commerce ventured to suggest that, as it was Christmas Day, the mail-carrier was probably drunk. That bartender was there and then given to understand by his customers that any further guesses of the kind relating to the mail-carrier would lead to a boycott of the place in favor of the Board of Trade, farther down the street—as McKinney, they stoutly insisted, was not a man to take even a nip while in the performance of his service in Uncle Sam's pay.

"The day after Christmas passed, and the second day after, and still no sign of McKinney, still no mail for Rocky Bar from Atlanta way. On the third day after Christmas, Pheolix, the other mail-carrier on the same route, allowed that it was about time some one went forth in search of the missing McKinney.

"Pheolix himself then started out through the deep snow as a relief committee of one. A mile and a half from Rocky Bar he stopped at the ranch-house of a Mr. Kehno and asked if McKinney was sheltering there. No, McKinney had not been seen, nor any sign of him. Pheolix plodded on, and, about six hundred feet from Mr. Kehno's door, he came upon a sight that nearly froze his blood.

"The sight that met the eyes of Pheolix was the body of a man lying in the snow in the attitude of one who had decided that that place was as good as any in which to go to bed. On each side of him was a snow shoe. One of the snow-shoes, Pheolix perceived, was broken.

"In that broken snow-shoe Pheolix read the whole story.

"McKinney had floundered in the snow for three days and nights. He had attempted to mend the snow-shoe and had fallen asleep. That he had lost his bearings was evident from the fact that he had perished so near to Mr. Kehno's house. In his hand he clutched the mail-bag as only a dead hand can clutch the thing for which, in his last moments, he struggled in vain.

One Lonely Letter.

"They carried McKinney's body to Rocky Bar and took the mail-bag to the post-office. And here comes the fact that makes this old, old story brand new. When the mail-bag was opened, only a single letter was found. It was addressed, 'George McKinney, United States postman, Rocky Bar, Idaho'—and was postmarked at McKinney's old home town in Oregon."

A few minutes after Phil Dreer, railway mail-clerk, finished telling the above tale of the conscientious McKinney, I boarded the waiting train for Pocatello. By the time we passed High Bridge, the first station in Idaho, the snow was no longer coming down in mere bunches, but was beating against the car-windows with terrific gale-blown force.

Our train would go ahead a little, then rest, as if getting its breath for another struggle, then push on a little far-

ther. With almost tornado force the wind struck us, as if bound to lift our car out of the train, tear it from its couplings, and carry us off down the mountain.

In the smoking-compartment of the Pullman there were four besides the man from Bonner's Ferry and myself, there was a traveling salesman from the East and a government Indian agent, of the inspection department, from everywhere west. We were scheduled to arrive at Pocatello at one in the morning, and we deemed it not worth while to turn in.

"We might as well get some sleep, gentlemen," said the Indian agent, "for at this rate we won't get to Pocatello till morning."

But we did not turn in for some hours later—all because of the wondrous fund of Wild-West stories which that Indian agent related about his thirty years of experience on the railroads of the West. His duties called him to all the Indian reservations west of the Mississippi.

He had just come from the White Earth Reservation at the very north of Minnesota, and was working his way down to a reservation in southern California, below San Diego—below the railroad.

"McKINNEY SLUNG THE MAIL-BAG AND HIS SNOW-SHOES OVER HIS SHOULDERS AND STRUCK OUT TOWARD THE HILLS."

A Flying Caboose.

But it was the traveling salesman who spoke first:

"You say this wind seems determined to lift this car out of the train. Well, if the wind did that to us, it wouldn't be the first time in railroad history. It would

be the second time, and it would be the second time within one week. For, according to records, that has happened only once in the annals of railroading.

"It was over on Sherman Pass, on the Union Pacific, near Cheyenne—and that's not so very far from where we are now. A gale there the other day—the eastern end of this same gale we are getting here and now—lifted the caboose of a work-train bodily, tore it from its couplings, and carried it thirty feet down into a gorge. The caboose turned somersault in its flight, killing two Japanese laborers, and injuring a lot of others seriously, including Conductor Jimmy Lowery and Roadmaster Bill Curtis."

It was here that the Indian agent joined in the talkfest.

"That was a peculiar and unusual accident our friend here tells of," he began. "I am not surprised that it happened on the Union Pacific. For, from Cheyenne west, the whole Union Pacific country is notoriously the worst in the Rocky Mountain region for blizzards and stalled trains.

Lost in the Snow.

"But the blowing of that caboose out of the train was an accident that was over and done with all in a jiffy—excepting, of course, for those who were injured. Besides, it happened to soldiers on duty—for railroad men are but as soldiers and must expect such things.

"So now I'm going to tell you, not of a mere accident, but of exquisite torture lasting all of two weeks and involving not only soldiers of the rail, but a number of passengers.

"To get you to appreciate this tale of torture, gentlemen, I ask you to imagine this train as becoming stalled now. It is dark, so you cannot see what sort of country we are stalled in. But I know the place, and nowhere can you see human habitation. Imagine us as being stalled here for fourteen days. We have a diner, to be sure; but how long would the food last among all these passengers?

"Well, to this condition, add the following: A branch road for which no rotary snow-plow is available, all such plows being at work night and day on the main line; a train consisting of engine, two day coaches and caboose, stalled in the mountains with only three small ranch-houses within five miles—snow in front and behind you, sixteen feet high, so that even a relief-train cannot get to you. On board your train there are fifty-two souls, including five trainmen, twenty-five section-hands and twenty-two passengers, among whom are four women.

And no food except a small quantity of beans and bacon; no way to cook except inside the car-stoves; the fuel giving out for both engine and stoves, so that your beans and bacon can no longer be warmed, and your engine dies. No heat in your cars, and no blankets, and the temperature from ten to forty below zero—and you have an approach to the conditions of torture that figure in my story.

"Now, I was in Cheyenne when this happened on the Cheyenne and Northern, a branch of the Union Pacific. The superintendent of that branch was my friend Rasbeck. He himself was aboard.

"The train left Orin Junction, Wyoming, only fifty-four miles from Cheyenne, on February 26, 1899. All hands expected to make the run through the snow-storm in one day. Yet, at the end of forty-eight hours of struggling with wind and snow, the train had gone only as far as Iron Mountain, only a few miles from Orin Junction.

"Iron Mountain was a way station where there was nothing but one small ranch-house. There they found they could go no farther, and there Rasbeck took active command.

"Water for the engine, Rasbeck said, was the first essential. He ordered the engineer to run back five miles to a water-tank. When the train started forward again the drifts were too much for them, and they had to shovel snow for two whole days to get back over the five miles to Iron Mountain.

The Two Heroes.

"They had an abundance of food on the train at the start of the stall, but this quickly vanished. Rasbeck then took the four women to the ranch-house. Two days later they came back to the train, saying that the food had given out at the ranch-house, and so their only course was to return to the train.

"HE DIDN'T PUT IN NO BUTS NOR ASK ANY QUESTIONS."

"Rasbeck then sent out two trainmen to hustle for bread, and four section-hands to kill a steer. The trainmen came back with the bread, beans and bacon, but the section-men returned empty-handed. In one day the bread gave out, and they were left once more with only a small quantity of beans and bacon.

"Rasbeck showed them how to cook the rations inside the car-stoves—till the fuel gave out. Now came the period of the worst suffering. Raw food, no heat in the cars, no blankets, and terrible suffering from cold, hunger, thirst, and exposure.

"Meantime, Rasbeck had kept the section-men digging snow. Well, those men actually *wore out* the shovels, and wore out their shoes and their gloves in digging—so that many of them fell sick; and on the tenth day of the torture less than half the entire force on the train was available for work.

"On the twelfth day out, the fires died

for lack of fuel. The passengers believed they were succumbing to imminent death. Every stomach refused raw bacon and beans—and all this time not a single sign from the outside world, not a word from Cheyenne, about relief.

"On that twelfth day Rasbeck went to the strongest man on board, a section-man, who seemed the least weakened physically, and said:

"'Oapeley, the rescue of this ship's company now depends upon you. I cannot do the job myself—for I must not desert the sinking vessel. There are snow-shoes on board—you must put on those shoes and get away from here, and walk — walk, God knows where — but walk you must, till you reach some place or some means of sending relief to us.

"'If they can't get a relief-train through, see that sleds or wagons are sent. This is the commission I give you. It is a forlorn hope. Heaven help us—for only a miracle can save us.'

"Oapeley started off on his snow-shoes. A day and a night passed—and to the stalled train came no aid. Another day, another night, passed, and nearly all hands were lying on the seats and floors of the cars, too weak to raise a finger.

"Suddenly — the tingle of a sleigh-bell was heard. And with that tingle, gentlemen, your own imagination will complete the tale."

Lost Both Feet.

"But that section-man, Oapeley," said the Indian agent, "who went on the snow-shoes, and saved 'em all—he froze his feet, and the railroad doctor at Cheyenne, who happened to be in attendance at the time, had to cut 'em both off."

"ONE OF THE INDIANS APPEARED AROUND THE—

Another silence, and more harkening to the shrieks of the gale. Then, again, from the Indian agent:

"Which reminds me of Billy the Bear—who, through the same cause, had to get a Union Pacific Railroad surgeon to perform the same operation. Billy the Bear lost both feet and eight fingers, leaving him with only his thumbs.

"The real name of Billy the Bear is Yeager. He's living to-day, at Chadron, Nebraska, though he lost those appendages twenty-five years ago, back in 1883.

"For physical endurance, and for sheer pluck and will-power to survive five days lost in a Wyoming blizzard, Billy the Bear has held the record all these years.

"He was a cowboy on the Bar M Ranch, thirty miles from the tracks of the Union Pacific at Rock Creek, Wyoming. Our friend here from New York" (meaning the writer), "says he was at Rock Creek a couple of years ago in a *mild* blizzard. He has some idea, then, of what it means to be in the Rock Creek country in the *worst* blizzard which the men of that region have experienced—the blizzard in which Billy the Bear was lost for five days.

"—CORNER OF THE STABLE."

"One morning Billy's boss at the ranch came to him, saying: 'Billy, here's a telegram for our owners at Chicago. It's of the utmost importance that they get this message at the earliest moment. I want you to carry it to the railroad station at Rock Creek, and get the operator there to send it.'

"Billy looked at the sky and at the distant Rockies, and instinctively felt that snow was about to fall heavily. Nevertheless he saddled up, believing that he could outride the storm and reach the railroad before nightfall.

"Talk about messages for Garcia! Billy the Bear was just such a messenger. He didn't put in no buts, nor ask any questions, nor express his opinions regarding the weather. He mounted and loped away with the telegram, and before nightfall the blizzard overtook him—and he had to sleep in the snow.

"The next day, and the next, and for four days, he and his horse stumbled on blindly through the gale of wind and the blinding snow, Billy only guessing where he could be.

All But Dead.

"On the morning of the fifth day Billy and his cayuse were dragging themselves along—all but dead. In that condition he came in sight of a log cabin, the home of a prospector whom Billy knew. In sight of that haven, within sight of the smoke coming from the chimney of the cabin—neither Billy nor his horse could go a step farther. The horse fell, exhausted, and so did Billy.

"As he lay there helpless, Billy instinctively took his gun from its holster, aimed at a tin bucket which he could see standing on a bench outside the cabin-door, and fired.

"Billy made a good bull's-eye on the bucket; and out rushed the prospector, spied Billy, rushed to where he and his horse lay, and managed to get them to his cabin, where he rubbed Billy's frozen feet and hands with snow and cared for the cayuse.

"The next morning was bright with sunshine—the blizzard had spent its force, though it was still bitterly cold. 'I must deliver that telegram,' said Billy. And, despite the protests of his host, he compelled that gentleman to strap him on his horse—and once more away rode Billy, this time bound, sure enough, for Rock Creek Station, which was not many miles from the cabin.

"That station, as our New York friend may recollect, has a platform built above the ground about on a level with a horse's back. Up to that platform rode Billy—and there he just reeled sideways onto the platform. There the station-agent found him, strapped to his saddle, the horse standing, and Billy unconscious—the telegram grasped in his outstretched hand.

"It was then that a Union Pacific doctor took charge of Billy, and deprived him forever of both his feet and his fingers, leaving him only his thumbs.

"THE CHIEF OF POLICE NABBED THE FAT STRANGER AND WALKED HIM DOUBLE-QUICK BACK TO THE DEPOT."

"Billy drifted to Chadron, Nebraska—and there you'll find him to-day, a prosperous merchant. Ask for Mr. Yeager, the man who delivered the message at a time when he should have stayed in bed."

"Idaho Mary's" Pluck.

One more story told by that Indian agent may well be included here. It is the remarkable story of a woman of marvelous courage—"Idaho Mary."

It was only natural that a man who had lived so many years in close contact with Indians should entertain us that night with all sorts of tales of redskins of the past and present. After no less than a half dozen brief recitals of fights between the builders of the Union Pacific Railway and the Indians in Wyoming, the agent related his most important and most thrilling tale of the night:

"Well, the most extraordinary of all the Indian fights here in Idaho was the one in which the heroine was 'Idaho Mary.' I knew 'Idaho Mary' well. She died—let me see, I should think about ten years ago, at nearly sixty-five years of age—over at Rocky Bar, Idaho. I knew her as the widow of Colonel Sexton, whom she married in very early life, but who died when Mary was somewhere in middle life.

"Colonel Sexton was one of the most respected settlers of his day in Idaho. He was respected by Indians as well as whites—and that's saying a lot, for the redskins in those days were particularly incensed against the whites because of the coming of the railway north of Salt Lake.

"The time came when the warriors of Chief Gray Wolf's band took the war-path here against any settlers whom they suspected of having anything to do with the railroad engineers and others who were supposed to be blazing a trail through here for a railroad.

"The Indians knew that the government had decreed that the Union Pacific should run north of Salt Lake. But just exactly at what point the Indians did not know. Unfortunately, just at that time a sub-chief of Gray Wolf's band, named Red Rock, happened to find Colonel Sexton in camp with a number of white men who were looking for a pass for a railroad through the mountains.

"Red Rock told Gray Wolf what he had seen; but Gray Wolf commanded that Colonel Sexton be left in peace. It seems that Red Rock then got together nine bucks of the tribe, and the ten redskins then plotted the death of the colonel and his wife.

"Going without war-paint, in order not to arouse the suspicion of Gray Wolf, and stating that they were starting on a hunting trip, they began a march of thirty miles to the colonel's home.

"It so happened that on the day of the arrival of the redskins on the colonel's claim, the colonel himself was twenty miles away, in camp with the

railroad surveyors. The trail which that little band of white men was blazing at that time is the very one followed to-day by the Oregon Short Line across Idaho from Boisé to Pocatello.

Red Rock and His Bucks.

"All alone at the Sexton cabin was Mrs. Mary Sexton, the colonel's wife—when Red Rock and his nine bucks loomed up. As the redskins approached, something sneaky in their actions made Mary suspicious. She went into her bedroom, where she quickly loaded a revolver and hung it about her waist, under her apron. The colonel's Winchester rifle she also loaded, and also placed within reach, yet out of sight, behind her bedroom door.

"She saw the Indians come to the cabin-door, and, to her joy, saw them leave their guns outside—and take note, right here, that the Indians' weapons were old muzzle-loaders as against Mary's Winchester and six-shooter.

"The Indians filed into the cabin, and found Mary placidly sewing. She greeted them amiably, but warily, speaking in their own language; for she, like the colonel, knew the red tongue.

"'Red Rock and his friends,' said the leader, 'have come over the hills from where the water flows to this place, where the fire-water flows. We have come to drink of the strong water. Also,' he added, with a kind of growl, 'we want meat.'

"'Shame on you!' cried Mary Sexton. 'To come to a woman for meat when game is plentiful in the hills. Are you turned squaws? And fire-water? Away with you! My husband shall tell Gray Wolf how you have broken the word he passed to leave us in peace.'

"'Gray Wolf has no ears, and his heart is as the chicken's,' said Red Rock. 'Gray Wolf does not hear that the Great White Feather is sending the big noise, that goes without pony, to scare away the deer and the buffalo from our hunting-grounds.

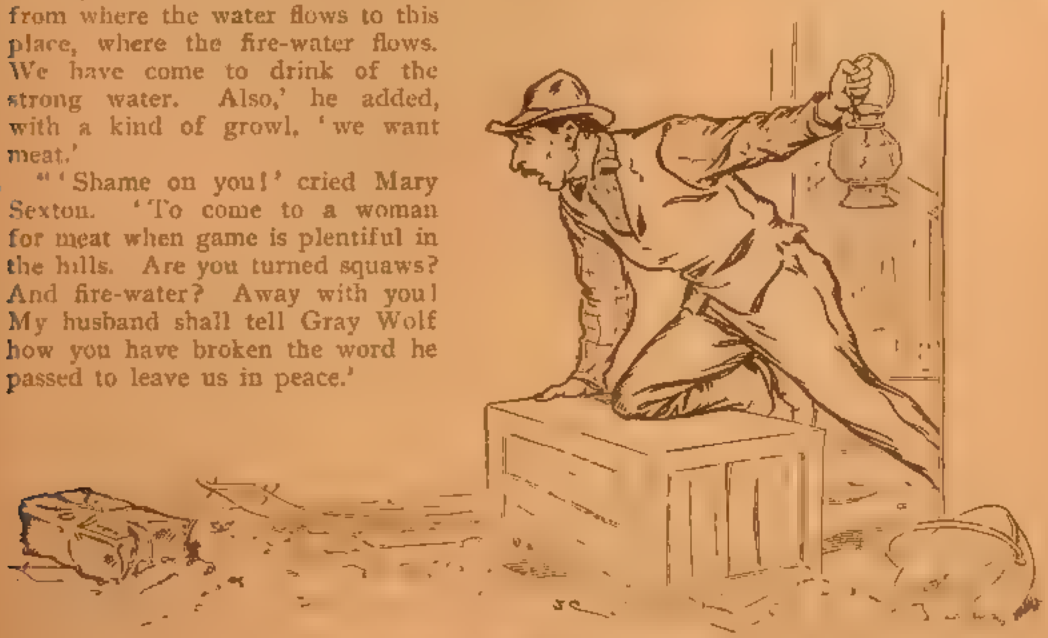
"'But Red Rock has ears, and he hears the big noise coming. Red Rock has eyes, and he sees your man powwow with those who will bring the big noise. And so'—here he unsheathed his hunting-knife—'Red Rock has come to roast you in the ashes of this wigwam. And after that, Red Rock will slay your man.'

"That was Red Rock's last earthly word. A shot rang out—Red Rock fell dead at Mary's feet. Another shot, and another—and two more redskins fell dead in the cabin.

"In the society in which she moved the redskin was never spoken of as he was in the East, as 'Lo, the *poor* Indian.' Mary knew that it was of no use to argue with an Indian, save to engage in an argument whereof the logic was bullets.

The Fourth Dropped.

"Mary, seizing her Winchester, followed them to the door and, before the



'HE ENTERED OUT OF CURIOSITY, JUST TO SEE WHAT THE PLACE CONTAINED

redskins could level a weapon at her, killed her fourth man.

"Then followed what you might call a general engagement, with the exchange of many shots—without even a wound for Mary. Just as she was about to fire the last cartridge in her rifle, she paused, instinctively suspecting that she had better save that last shot for some crisis.

"That crisis came just then. One of the Indians flew at her with his knife. When he was within ten feet of her, Mary keeled him over with her last shot. Thus, number five was slain.

"The five remaining redskins now split up into two parties. Two men guarded the cabin—the one with a gun leveled at the door, the other with a gun trained on the window. The other three began fetching hay from the corral.

"This, however, gave Mary a chance to reload her weapon. But then—what? Here was the most serious plight she had been in since that first moment when the Indians first filed into the cabin.

"There were the three men bringing the hay—to pile it against the cabin and fire it. She would be roasted alive! To attempt egress by either the door or the window meant sure death by a bullet.

"Here was a situation to unnerve any woman, let alone one who was not five feet in height, and who weighed only a hundred pounds. But Mary was a quick thinker. She thought of the little window in the bedroom at the rear. And she flew to it, and crawled through.

"The first inkling the Indians had that she had got outside of the cabin was when the one who was leading the three carrying the hay fell dead in his tracks. Mary was shooting from behind a log fence at the corner of the cabin.

"The death of the Indian seemed to disconcert the remaining four, so unexpected was this new attack. They beat a hasty retreat. Mary kept her eyes on them, however, as she could easily do in that open country. She knew Indian ways. She knew that they would return

"PUT UP YOUR HANDS"

stealthily, in the hope of catching her off guard.

"She was right. She became conscious that one Indian had vanished in the brush. The other three remained in plain sight—probably as decoys. It was the one who had disappeared for whom Mary watched. And, surely enough, all of a sudden a bullet tore its way under her arm, making a slight wound.

"The puff of smoke from the discharged weapon was sufficient for Mary to locate her man. She dropped, feigning death—and the Indian, who had fired the shot from a ditch through which he had crawled near, sprang up to signal to his comrades.

"He never made that signal. A shot from Mary's rifle pierced his heart.

"The three remaining redskins advanced recklessly and desperately to the attack, as if bent upon getting Mary's scalp in sheer revenge. They ran forward till they reached the shelter of the stable—Mary withholding her fire till the right moment should come. In a few minutes one of the Indians unwisely peered around the corner of the stable. *Bang!* He fell, pierced through a lung. So died number eight.

"Only two remained. Fortunately for Mary, those two were silly enough to empty their guns at her as they started on the rush, so that, upon leaving cover, they had no weapon to depend on but their knives. Another of Mary's trusty bullets sent the one to his happy hunting-grounds. The second turned to flee.

"With that last man in sight, Mary, for the first time, hesitated. Should she shoot him in the back? No, she could not, would not. But then came the thought of her husband. If she allowed this man to live, she would surely spare a man who would kill her husband. And without further hesitation, she shot him.

"Think of the scene confronting Colonel Sexton when he returned to his cabin that night, in company with two of the railroad surveyors and three Indians! Here and there about the cabin lay the bodies of seven Indians, and inside the little home the bodies of three more. And there, on the door-step, sat Mary, her Winchester across her knee, her face as white as a sheet, but still nervy enough to say:

"'Colonel, you may cut ten more notches in this gun.'

"And that's how Mrs. Mary Sexton, of Rocky Bar, Idaho, came to be christened 'Idaho Mary' by Chief Gray Wolf, who, when he heard the story, presented her with the ponies and guns belonging to the Indians she had killed, adopted her as his sister, and made her a member of the tribe.

"There's a pile of rocks over there to-day that hold up this sign:

"Here occurred the fight in which Mary Sexton wiped out Red Rock and nine other Indians belonging to Gray Wolf's band."

—BUCK YOUNG! THANKS!"

At Pocatello, Baggageman Ketchum filled out the check that would set my bag down in Salt Lake City, meanwhile making these few remarks:

"Say, why don't you fellows give us baggage-smashers a showing once in a while? We have our hairbreadth escapes all the same as engineers. No, I don't mean such things as being squashed under an avalanche of trunks from an overloaded truck. I mean such things as getting shot.

"Why, it was only the other night. Kenneth Hannum—that's the name of the baggageman I'm talking about—was unloading trunks from a truck. Those trunks had just come in on the train from Walla Walla. He came to a big,

iron-bound, chesty piece of baggage that weighed some more or less than a ton. He just let it tumble from the truck.

"Say, there was consequences right then that made Hannum make a noise like a battle. There was a report and the ping of leaden death. The next thing Hannum knew blood was streaming down his hand. His coat-sleeve was in rags, and a crimson furrow ran up his arm from the elbow to the shoulder. A bullet had struck his elbow and plowed its way up his arm.

The Guilty Trunk.

"'Help!' yelled Hannum. 'Some one in that trunk there has got a bead on me.'

"All hands at the station came flying to Hannum's rescue. Smoke and flame were issuing from a hole in the port-side of the trunk. In the gathering crowd was a fat, sleek man, with pudgy hands and a diamond as big as a chandelier glistening on one of his fingers. This man, seeing some of the railroad men attack the trunk with such weapons as came to hand, cried:

"'Hey, there—what you doing? That trunk belongs to me. Let it alone.'

"'It's yours, is it?' yelled some of the angry railroaders. Other bystanders fell upon the fat man with the lust of gore blazing in their eyes, and the owner of the trunk had to flee.

"The mob chased him through the railroad yard, and then up the main street, no end of indignant citizens of Pendleton joining in the pursuit, till, finally, the chief of police loomed up and made official inquiry as to all the fuss.

"'He carries an arsenal of loaded weapons in his trunk,' the crowd shouted, 'and Hannum, at the depot, has been riddled with bullets.'

"Thereupon the chief of police nabbed the fat stranger and walked him double-quick back to the depot, where Hannum was found, nursing his wounds. There, too, the chief found the guilty trunk wide open and railroad men scattering its burning contents to the four winds, while the depot-master displayed a forty-five Colt's, with every chamber loaded excepting one.

"'Look here, chief,' cried the depot-master. 'It's your duty to arrest this man.'

"And, say, that fat man with the diamond left a little of his side-show money in Pendleton, you bet, in the form of a fine. There was not a living baggageman in or around Pendleton who would check so much as a suit-case belonging to that fat man.

"One day a cowman, well known in Big Timber, walked into the railroad station and delivered to the agent a bag to be expressed to a place in Idaho.

"'What value?' asked the agent.

"'Three thousand dollars.'

"That same night the shipper disappeared from Big Timber and did not show up again for two weeks. Within that fortnight news came that the stage on which that bag was forwarded to the station had been held up by a bandit, who took nothing but the bag in question.

Costly Newspapers.

"Upon the reappearance of the shipper of the bag in Big Timber, the express agent there heard that the shipper had declared that he would claim three thousand dollars to compensate him for the loss of his bag. The result was that when the shipper showed up in the station, he was confronted by a square-jawed agent who held a gun.

"'Put up your hands, Buck Young. Thanks! Now, will you be kind enough to identify the bag you shipped that was worth three thousand dollars?'

"With that, the agent stood before Buck Young the identical bag which he had brought there to be expressed to the Idaho town. 'Is that your bag?' asked the agent. 'It is? Well, then, open it.'

Buck Young lowered his hands long enough to do as bidden, and the opened bag revealed contents consisting entirely of old newspapers.

"'Pretty high price for newspapers, Mr. Young,' the agent said. 'That bag you took from the stage when you held it up was a decoy bag, an exact duplicate of your own, with contents also duplicated. About face, please, and keep your hands up till I deliver you to jail.'"

Another story told by that Wells, Fargo man at Pocatello was this:

"The night-watchman on the Oregon Short Line was one Riley. One night in April he entered an old, unused outhouse near the tracks—entered out of curiosity, just to see what the place contained. He found a much-worn package bearing a Wells, Fargo Express Company label.

"'The next morning our agent in Salt Lake, Mr. Carey, was sitting in his office, when Riley came in.

"'Good mornin',' he said. 'Mr. Carey, findings is keepings, ain't it, when no owner shows up? In that case, then, Mr. Carey, I'll be resigning my job right now, because I'm worth three—hundred—thousand—dollars, sir.'

"Mr. Carey pretended great seriousness and asked what Riley's property consisted of.

"'Railroad bonds,' quoth Riley. 'Here they are, sir.' And he explained how he found the bonds.

"Mr. Carey looked the bonds over, then said: 'Yes, Riley, findings is keepings. These bonds are yours.'

"Riley took his bonds home with him, hid them under his couch, then went forth to begin spending his fortune. Late that afternoon he again dropped into Mr. Carey's [illegible]

"'Now, Mr. Carey, please tell me who it is that I take the coupons to.'

"'Oh, just take them to anybody that happens to strike your fancy,' replied Mr. Carey. 'I've wired our San Francisco office about your bonds, and learn that they were shipped from Frisco by our company to Salt Lake, with a view to their sale here. You will notice that your bonds are those of a railroad in Hawaii. Well, that railroad was never built, and the people who subscribed money for the bonds got their cash back.'

"'Got their money back, did they?' cried the indignant watchman. 'Well, who's to give me back the money I've spent to-day on these bonds? I've blown in over five dollars! Well, ain't this a— Oh, what's the use?'"

ANOTHER TRAMP KING.

Some of the Tricks He Works on Conductors—Task of Getting Free Transportation over the Railroads.

WE thought, when we became acquainted with "A No 1," that we had discovered, or been discovered by, the chief tramp of trampdom, but it seems we were wrong. We have, by way of the St. Louis *Post-Dispatch*, the word of Penn, the Rapid Rambler, that he is the individual who can lay claim to the honor, and that any other claimant is a faker, a usurper, and impostor.

Penn's real name is Frank G. Welch. He has been on the road since he was fourteen, and says he has traveled 526,000 miles without paying one cent.

The story of how he tricks the innocent, unsophisticated conductors is enough to bring tears. Here it is as the St. Louis *Post-Dispatch* tells it:

"He first announces casually that he will be on his way to Chicago, and the reporter asks him where he will get the money.

"'I make my own ticket,' he answered. 'How? Out of a hat-check. I have traveled one hundred and fifty times between St. Louis and Chicago on this trick which I invented.

"'I go into the railroad-yard with overalls on, and make my way to the train as it stands in the shed. As she pulls out I get on the steps under the vestibule floor.

"'After the train pulls out of East St. Louis, and the conductor has picked up his fares in the forward smoker and gone back through the train, I take off the overalls and unlock the door of the vestibule from the outside. That's another of my specialties.

"'I know pretty nearly every conductor that travels over the line I patronize and his punch mark. I know what conductor is going out, and I fix up a hat-check, making a close imitation of the punch-mark with a pointed, keen knife-blade.

"'After I open the vestibule-door I roll up my overalls, go into the car with the check in my hat, and lie down in a seat and go to sleep with my hat over my eyes. The conductor, going through, sees the Chicago punch in the check and passes me all night, and in the morning I am in old Chi'. It's as easy, almost, getting from Chi' to N' Yawk

WITH COMPASS AND CHAIN.

BY EDGAR WELTON COOLEY.

Written for "The Railroad Man's Magazine."

COME, comrade! Match courage with courage, firm step, and steady breath!
It is you and I and the unseen path through the yawning gates of death;
It is you and I and the wilderness, and the crags where the senses reel,
Together we'll fight creation's might and chain it with bands of steel!

Let cowards flee from the fears that be, for theirs is the heart of a child,
By the lonely hours and the grit that cowers, together we'll tame the wild;
By the God above, by the ones we love, by the tears in a woman's eye,
As man to man, as true men can, we'll conquer chaos or die!

From the snarling whine of the wind-blown pine, o'er the chasm's hungry jaws,
We'll drag the chain by might and main and never go back or pause.
We'll drive our stakes where the red rock breaks through soil where the foot of man
Was never pressed since the sun caressed the dawn and the world began!

To the uttermost deeps, where the midnight sleeps; to the peaks where the wild winds ride,
With compass and rod, if it pleases God, we'll go, what may e'er betide!
Where the gaunt wolves lope on the barren slope, with their hot and hungry breath,
Where the wild things hide on every side and we're glove in glove with death;

Where the lightning leaps from steeps to steeps and the storm
beats down in wrath,
We'll crawl on the edge of the treacherous ledge and chisel the
engine's path,
Though the blizzards wail and we lose the trail, and the avalanche
lies in wait.
For Success a cheer, and only a sneer for the fabulous thing called
Fate.

We'll never turn back till we've staked a track wherever the brain
may plan,
Till the wilderness sings that the King of Kings and the Master
of Things is Man;
Till the task begun is the task well done, till the dream that was
is real,
Till we're face to face with the innermost place and have pierced
its heart with steel!

With carbine and blade the ranger may raid where the tuft of
the Indian shows,
With a pack at his back, o'er the beaten track, through sand or
drifting snows;
From the canyon's wall the bugle's call may echo to Heaven's door,
But the soldier to-day has only play, since the rails stretch on
before.

It's to scale the steep where the shadows sleep and conquer the
dizzy height,
And blaze the trail for the iron rail that demands of man man's
might!
It's to measure the miles to the afterwhiles, though the face may
freeze or tan,
Up over the grim mount's furthermost rim that calls for the nerve
of man!

The compass and chain forerun the train, as the night foreruns
the morn,
So it's hew to-day the swift highway for the millions yet unborn!

Then, comrade, come! Courage for courage; firm step and steady
breath!
It's you and I and the path unknown through the white-capped
peaks of death!
It is you and I and the solitudes so deep that the senses reel,
With compass and rod, if it pleases God, we'll shackle the wild
with steel!

HELP FOR MEN WHO HELP THEMSELVES—NUMBER 26.

MEN WHO HUNT FOR COSTLY TRIFLES.

BY C. F. CARTER.

THE railroad of to-day bears about the same relation to the railroad of to-morrow as the newly quarried block of marble to the finished statue. Our forefathers had all they could possibly do in blocking out roughly the pioneer roads without any effort at "polishing them up."

While we have polished and polished, we can never effect the final polish. Our railroads will never reach a stage of absolute perfection. There will always be room for improvement of some kind. Their wonderful growth and progress demands it.

Why It Is Necessary to Employ Able Men to Think Out Schemes of Economy, and How Those Schemes Are Put Into Operation.

LIKE woman's work, of the ancient proverb, a railroad is never done. On the contrary, the problems confronting railroad managements are always growing more formidable, though their forms may change. In the beginning the great problem was to build something that in some sort of fashion would meet the growing need of transportation. From the very nature of conditions, everything had to be done in an experimental, makeshift sort of fashion, but this did not mitigate the difficulties that had to be overcome to arrive at the railroad of to-day.

To the development of the railroad the pioneer builders brought an amount of energy, enthusiasm, daring enterprise, and faith in the future unparalleled in the world's history. So zealously did they play their part in construction that the second generation of railroad men found themselves confronted with the still more formidable problem of finding traffic enough to enable the lines already built to exist.

Unlike any other business enterprise, a railroad, once completed, cannot be abandoned because it is unprofitable. It is not merely a private undertaking; it is a public work as well. Trains must continue to run whether they earn interest on the bonds or not. If they do not pay, the traffic managers must give way to men who can make them pay.

In coping with the second phase of their problem, railroad men played a

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more important part in the development of the nation than they have been given credit for. If it had not been for the incredible labors of the railroad-traffic builders, the United States would be very far behind its present stage of evolution.

Millions were lavished by the railroads to create revenue-producing traffic in the wilderness. Immigration agents scoured Europe, and coaxed population over by the hundred thousand.

Then the railroads sent out instructors on seed-corn specials and seed-wheat specials to teach the farmers how to raise bigger and better crops. They sent "good-roads" specials to teach the farmers how to haul their improved crops to the station economically. They did it in order that they might have more car-loads of freight to haul, but the policy deserves none the less to be characterized as practical philanthropy.

Scientists, employed by the railroads, studied the natural resources of the country, discovered raw material available, and told how this material could best be manufactured.

Representatives of the traffic departments hunted up small capitalists with a knack for manufacturing, and stuck right to them until they were safely established in factories along the line. Finally, rate clerks figured themselves into premature baldness trying to concoct a tariff on the products of the new factories which would enable infant industries to grow.

The Second Problem Solved.

The fact that the railroads did all this, not for the sake of the trusts they were creating, but for a few extra car-loads of high-class profitable freight, detracts nothing from the value of the service to the country. Thus was the second great problem of the railroads solved.

Fortunately for the country, the solution business was decidedly overdone. The railroads were soon overwhelmed with the traffic of their own creating. This situation has brought out the third and final phase of the railroad problem, and now the transcendent task confronting the railroads is to improve their facilities sufficiently to take care of the business forced upon them.

In early days, when each new utility had to be invented as the need for it was recognized, the only test was, "Will it do?" Now, instead of seeking expedients within their available means, managements are compelled to find scientifically correct mechanism and method regardless of first cost. The rule of thumb no longer answers. It is not enough merely to handle the business offered; it must be handled well, for the sake of the stockholders quite as much as for the well-being of the public.

When the Chemist Talks.

The situation has placed a new autocrat on the transportation throne. The promoter with the constructive imagination and dauntless courage, and the miracle-worker in finance, have been obliged to abdicate in favor of engineers and chemists and other experts with mysterious initials affixed to their names.

When these learned gentlemen announce that such and such things must be done because they know they are the right things to do, the directors dare not talk back—they simply dig up the money.

From the spectator's point of view, the solution of present-day problems is no less pictureque than like achievements of earlier days. For one thing, the process involves an exhibition of team-work on a larger scale than has ever before been attempted.

The magnitude and complexity of railroad activities, by creating a necessity for organization, has developed to a remarkable degreee its capacity. This capacity has been taxed to the utmost in grappling with the problems involved in reducing railroading to a science. While dealing with its own peculiar perplexities in its own way, each line lends its unstinted cooperation to all the others in mastering their common difficulties.

Specialists in each line have their own national organizations, which systematically take up and work out every question, great or small, bearing upon their own particular calling. There is a long list of the national organizations, all hard-working and very much in earnest, such as the Engineering and Maintenance of Way Association, the Master Car Builders' Association, Master Mechanics' Association, and many others.

The American Railway Association—made up of the higher executive officers—interests itself in every subject that concerns railroads, and seeks to coordinate the efforts of all the other organizations to the common good. To make sure that no vagrant idea escapes, delegates are sent to international railroad congresses to round up any desirable wrinkles that European experts may chance to hit upon.

Never before have so many clever brains, so many skilled hands, and so much money been focused upon the attainment of any single object as are now engaged in trying to improve the railroads of the United States up to a point that will enable them to handle the traffic offered, and perhaps make a little profit in doing it.

In striving after the perfect railroad, the engineers quite properly begin with the track, which is, literally and figuratively, the foundation. To the unpractised eye the railroad track of to-day looks the same as the track of a dozen years ago. Moreover, in all human probability, the track of fifty years hence will look just like the track of to-day.

As inventors have been wrestling with the monorail for three-quarters of a century without producing any practical results, it may safely be assumed that trains will continue to struggle along indefinitely on two rails, and that those rails will be laid exactly four feet eight and a half inches apart.

Track Improvements.

But appearances are proverbially deceptive, and nowhere more so than in a railroad track. Great improvements have been made in many details of the track, and still greater ones may be expected in the future—for the one thing upon which all engineers agree is that the best of railroads is not as good as it might be.

Perhaps some idea of the amount of room for improvement in a thing so seemingly simple as a railroad track may be gathered from the fact that, at its last annual meeting, the American Engineering and Maintenance of Way Association instructed seventeen committees to investigate and report upon seventy-eight subjects pertaining to the permanent way.

On a good track the traveler is scarcely conscious of the curves and grades over which he rides. Even if his attention was called to them, he would be unable to perceive therein any possibilities for spectacular achievements. But if he only understood that a reduction of grades from 52 feet to the mile to 21 feet would double the hauling capacity of the locomotives, reduce the number of trains one-half, and lop off one-fourth of the cost of operation, he might begin to take notice.

The Engineers' Troubles.

If he further understood that a locomotive has to exert half a pound of its meager tractive power per ton of load per degree of curvature to drag its train around curves, and that, assuming the average cost of hauling a train one mile to be 85 cents, the straightening of each degree of curvature means an annual saving of 35 cents on each daily train, he would be still further qualified to understand why the straightening of kinks, both horizontal and vertical, is the biggest problem confronting railroads to-day.

The difficulties are by no means ended when the large sums of money required for the work are raised; the engineers have their troubles, too. Sometimes it takes years to find a practicable way to eliminate a stretch of objectionable track. One of the greatest undertakings of the kind yet accomplished was the rebuilding of the Southern Pacific, formerly the Central Pacific and Union Pacific. In Nevada and Utah alone, $9,000,000 was spent in reconstruction, by which 50 miles in distance were saved, while 16,542 degrees of curvature and 3,064 feet grade rise were abolished. Part of the work was done by building thirty miles of new main line right through the middle of Great Salt Lake.

More millions were spent in reducing curves and grades in Wyoming, while the Lane cut-off in Nebraska, recently completed, saves another 11 miles in distance and some very bad grades and curves. A single cut on the new line is 1 mile long, 87 feet deep, and 400 feet wide at the center.

The Northwestern Railroad, a few years ago, spent a round million of dol-

lars to build a cut-off 7.4 miles long between Boone and Ogden, Iowa. It saves 3 miles, reduced the total curvature from 902 degrees to 68 degrees, and reduced the heaviest grade from 79 feet to 26 feet per mile.

Studying the Road-Bed.

Once a line is located, the next point to be considered is how to construct the road-bed so as to make it render the best service at the lowest cost. That sounds very simple, but railroads do not find it so.

After years of effort to solve the problem in actual service as it went along, the Pennsylvania Railroad decided that it was not making satisfactory progress. So a special commissioner of maintenance-of-way engineers was appointed in 1905 to experiment with road-beds and fix a standard. Fifteen miles of experimental track were built in the two years devoted to the study of the subject. Then the commission made its report, and the reconstruction of the great Pennsylvania system was begun in accordance with its specifications.

Drainage is the one great point on which special stress was laid by the commission, for water is a railroad's worst enemy. Extremely wide ditches were recommended, and the sides of all slopes are sodded or covered with vines to prevent detritus from washing into the ditches and filling them up. Large cast-iron drain-pipes were to be placed under the ballast at frequent intervals. Each mile of standard track is to have 5,127 cubic yards of crushed-stone ballast to keep it steady.

Next to the reconstruction of the trunk-lines on a standard that will make the economic handling of traffic possible, the matter of maintenance is the most important problem connected with the permanent way. This means the work done by the humble section-boss and his gang. However obscure the section-boss may seem in the eyes of the public, he is a very important man in the railroad organization.

Under his orders one-sixth of the total cost of operating is expended, and upon his skill depends the ability of trains to make time.

E. H. Harriman knows how to appreciate the section-boss. In order to make him satisfied with his lot and keep him up to concert pitch, the little wizard of Wall Street has established two hundred library centers on the Harriman lines, from which an abundance of good books and periodicals are circulated among the section men on all the Harriman lines.

One of the section boss's problems, that is causing his superior officers a vast amount of worry, is the matter of ties. Every railroad in the land is making desperate efforts to solve the problem of tie supply. Twelve different models of reenforced concrete ties have been tested, but none have fully met the requirements. Steel ties of every conceivable pattern have also been tried, with but poor success; while a dozen different methods of treating wooden ties to preserve them from decay are in use.

While one set of experts is grappling with the tie problem, another is trying to find something better than the present spike to fasten the rail to the tie. Recent tests by a Columbia University professor demonstrated that a side pressure of 17,000 pounds by the rail was sufficient to cut off the head of a spike. The strength of spikes is therefore ample, except possibly under most extraordinary circumstances.

Troubles of the Spike.

The trouble with the spike is not that it isn't strong enough to withstand the shearing movement of the rails, but that it is a tie-destroyer. It cuts and bruises the tie, and so hastens decay. For this reason there is a great deal of talk about introducing the screw spike, extensively used in Europe.

Ever since the first railroad was built the rail has been the most vexatious problem with which engineers have had to deal, and it seems as far from a satisfactory solution to-day as ever it was. No single detail in railroad construction has been the subject of such heated controversy as the shape and size of the rail. Whole libraries have been written on the theory of rail-making.

Although the American Railway Association has adopted certain specifications for steel rails, and has recommend-

ed their adoption, the controversy is by no means settled. But the distinctions in specifications between the most widely different types of rail are altogether too fine for the lay mind to grasp.

The Pennsylvania Railroad is obliged to use 140,000 tons of rails every year for renewals. As this involves approximately $2,500,000, the company is naturally anxious to reduce this item if possible. As rails wore out first at the ends which were battered down by the wheels of passing trains, it was the custom to take up the rails at the end of their average service of ten years, cut off about 18 inches from each end at a cold-sawing plant, redrill holes for angle-iron bolts, and relay on branch lines, where they would last another ten years.

As this was only half the service a good rail should render, a corps of engineers was set to work to make a systematic study of the problem nine years ago. Copies of the patents for the 861 different kinds of rail-joints offered by industrious inventors were procured and carefully examined.

Of the lot, six of the most promising were selected and introduced in sections of experimental track. These various joints are now being tried out in actual service, and the one that makes the best showing at the end of ten years will be adopted as the Pennsylvania standard.

Economy in Fence-Posts.

In a business where thinking is done exclusively in millions there are no trifles. Problems that might seem inconsequential to the outsider involve results that are rather startling. For instance, the proper distance between fence-posts would seem to be a matter more worthy the attention of a small farmer than that of the high-salaried director of operation and maintenance of the Harriman lines.

Yet that capable official took time to observe that the fence-posts along the lines under his charge were one rod apart, while two rods would answer equally as well. If his order to set fence-posts two rods apart, instead of one rod, were to be applied to the 30,000 miles of railroad more or less under the Harriman influence, it would effect a saving of something like $350,000 a year on renewals of fence-posts, which is equivalent to five per cent interest on $7,000,000.

Railroad fence costs all the way from $300 to $1,500 a mile. At the average of these extreme prices it would cost $195,300,000 to fence all the railroads in the United States.

The Woodpecker's Ravages.

Not the least of the trifles that are great things is the woodpecker problem. In the South and Southwest the woodpeckers alight on the telegraph-poles, and, upon hearing the humming of the wires, jump at the conclusion that some particularly fat and luscious worms must be at work inside the poles. Thereupon they set to work to dig them out. They don't get the worms, but they do run the cost of renewing telegraph-poles up to appalling proportions.

In California, Arizona, and Texas, fifty per cent of the poles are riddled so that they are dangerous for linemen to climb, and they go down with the first wind storm. One inspector in California found 25 poles with 200 to 300 holes bored in each by the woodpeckers. Along the Illinois Central in Tennessee 110 of 268 consecutive poles were so badly riddled by woodpeckers that they had to be replaced.

The next article in this series is also by Mr. Carter. It deals with the important subject of motive power.

A BO AND A BULLDOG.

BY EMMET F. HARTE.

Stealing a Bulldog from a Baggage-Room Doesn't Always Lead to the Paths of Glory.

HE fact that I sat dozing in the shadow of a ramshackle corn-crib at York, Nebraska, does not signify that I was ditched, because I wasn't. I was doing window-glass signs at the time in that section of the State, and had cleaned up a very genteel little stake at that particular county seat.

Under such circumstances you'd think I would have bought a ticket for Grand Island, whither I was bound, and rode in on the red plush along with the law-abiding and otherwise uninteresting traveling public—but not me. A minion of the B. and M. once swindled me out of two dollars due for arduous labor as a section-hand under the rules and regulations, down at Red Cloud.

In redress thereof I don't pay over no money of mine to that company for railroad fare. I bide my time until the effacing shadows of nightfall envelop the surroundings, and then effect a hiatus per the blind, the trucks, or the breeze-fanned Pullman-roof, and save my money.

Thus, true to conviction and unharassed by either hunger, conscience, or weather, I sat nodding until four hours should elapse and the west-bound train should potter along as scheduled. There always intrudes a note of discord, however, into every serene and poetic languor of mine.

A local rattled in a while before sundown, a local pulled by an antiquated din-maker rigged with a blower, and they coughed, buzzed, and sputtered around there, switching up and down past my shed for half an hour, making much disturbance of my peace. Finding, finally, that I couldn't sleep, I sat up, looked about me and there, not ten feet away, I saw Fitz Souders in the company of a white bulldog, the two of them engaged in the eating of a pie.

I've known Fitzhugh Souders for years and years, but the bulldog was an entire stranger. Fitz is a bo of the unabashed stripe. A few of us pretend to have some means of support; he don't.

He's hobo, true to name and warranted, flotsam pure and simple, and not ashamed to approach the grandest dame that ever made swishing sounds along a cement sidewalk, in the garish light of high noon, to ask genially for a dime or a quarter. I threw in my clutch and honked over to renew affiliation.

"Well, well!" he said, in recognition. "W'ich way, bo? Who'd have thunk it? Have a piece of pie? It's pumpkin."

"Thanks!" I said. "I'm headed for Grand Island. Where'd you get hold of the pup?"

"That," he remarked, "is another story. Sit down and make yourself at home. Happen to have any makings? Ah!—" a pause; silence broken by the snuffling of a nose, the hurried exhaust of the freight-engine kicking a car off, some distance away, the crash of drawheads when it hit a fellow victim, then Fitz struck a match, lit up, and resumed:

"He's an English bull; thoroughbred, pedigree from A to Izzard, with a line of ancestors to make our great American first families sky-blue with envy. Look at him, don't he show up select?"

"He's stumbled into grievous bad company," I commented.

"'True 'tis, 'tis pity; pity 'tis, 'tis true,'" quoted Fitz, unruffled, "but it might be worse. In fact, it has been worse, as I was goin' to tell.

"You ought to seen the bunch that had him in tow when I got him. Box-car thieves, depot sneaks, and suit-case-lifters, that was the kind of company he was in then; and a kick in the slats when he didn't wag his tail to suit; eh, Bench?"

The dog flicked his ears and turned an adoring eye in Fitz's direction.

"It was down in St. Jo," continued the narrator, "Jesse James's town; a tolerable-like village, with aspirations, and boastful of being the healthiest speck on the map, but smudged with some of the worst two-for-a-nickel thieves from Sioux City to St. Louis.

"I hung around there almost a week. The coppers are an easy-going lot of peace-promoters, having a grudge at only two kinds of people, namely, gun-tooters and lid lifters.

"Once in a great while they catch a stick-up artist or a porch-climber; just to show their versatility; or a cycle-sleuth chases an automobile up a telephone-pole or into the river for exceeding six miles an hour; but, on the whole, St. Jo isn't boisterous.

"Its river-front and frame-shanty districts are, as I said before, pretty considerably frequented by a class of light-fingered gentry, however, who steal everything they can from the railroads, from the coal that scatters off in the yards, to the wheels off of the passenger-coaches. There was a regular gang operating in and around the place.

"They would secrete themselves into box cars of merchandise in the yards. Then when the train pulled out through the edge of town, they'd slide the door open and heave out caddies of tobacco, cases of canned goods, cigars, tomato-catsup, shoes, bananas, kegs of bad booze, and bales of cotton piece, to be picked up by other members of the association who were waiting for that purpose, and hauled to town in a wagon.

"Easy, wasn't it? Huh! It was like gathering manna on a bumper-crop year of that commodity! It was a cinch!

"All this I found out later. I stumbled on the thing by accident—as good a way as any, I guess.

"I was loafing on a hickory settee opposite the baggage-room of the Union station, one dusk, arguing with myself whether to go to Omaha or K. C., when I saw a man frisk this pup here from the baggage-room and make his getaway without a soul seeing him but me, I do believe. The dog was tethered to the handle of a trunk by the door, and the party with the sticky fingers just sidled along, clipped the cord and slipped across the street between a trunk-van and a street-car, leading the dog, ducked into a cross street, and did the vanishing skiddoo.

"I whipped up and took his trail. It wasn't hard to follow the guy; a blind man could have done it. He went toward the river a ways, then he turned and took down the Terminal tracks along the bank.

"I kept him in sight until he finally went into a house somewhere down southeast of the bridge. Then I sized up the same as to locality and general aspects, so I'd be able to find it again if necessary.

"I went back the way I had come, concluding to stay over another night. The morning papers would probably have an ad in the Lost and Founds: 'Ten dollars reward for the return of a white bull pup and no questions asked,' w'ich would look good to me.

"I had an inkling in my own mind as to what I'd do if such proved to be the case. While I was going along cogitating with myself about the matter. I fell in with another bo. He was a stranger to me, though he was evidently an old-timer in the profession, for he was seedy, sloppy, and shy several shaves.

"'S'y, friend,' he said, 'c'd yeh stake meh to a match?'—I could, would, and did. In return for the favor he asked about freight-trains outgoing, north, east, south, and west. He wasn't seemingly particular about w'ich way he went.

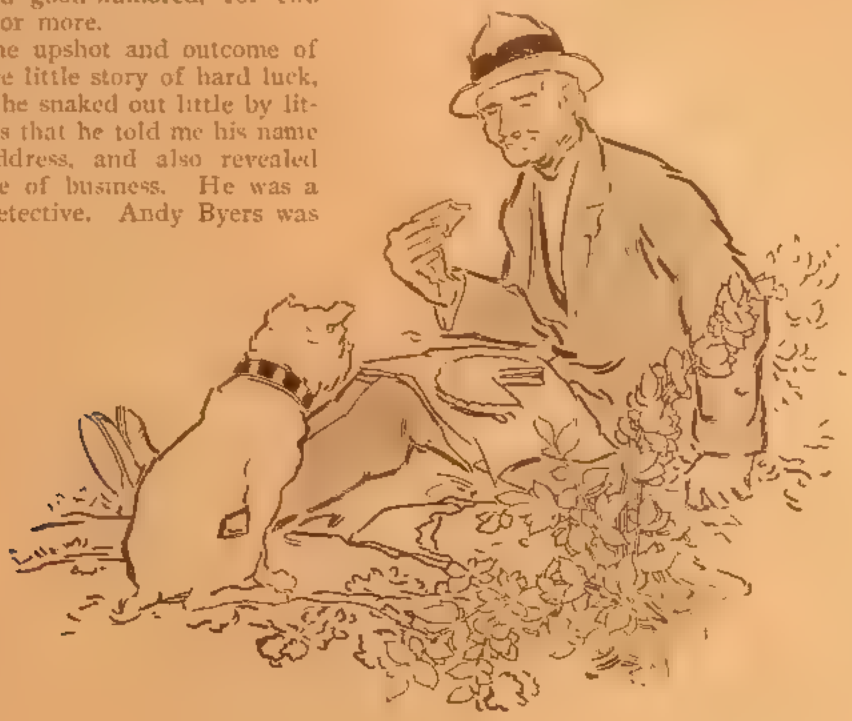
"'You've got me faded,' I told him. 'I only ride passengers. No freights for mine. I couldn't tell you within six hours of the leaving time of any one of them, because I don't know.'

"That seemed to interest him considerably. He studied it over. Then we talked on a while about this, that, and the other, and the first thing I knew the man was pumping me.

"Quite a sweater he was, too; doing it in a roundabout way, mixed in with other conversation of no moment, and a few

stories, strictly new, clean, and well told. As soon as I tumbled to the catechism game I played dead and told him the history of somebody else's life, [illegible] edging the same modestly as mine. We went over and sat on the river-bank and made friends each with each, quite chummy and good-humored, for two hours or more.

"The upshot and outcome of my nice little story of hard luck, which he snaked out little by little, was that he told me his name and address, and also revealed his line of business. He was a 'Q.' detective. Andy Byers was



"WHO'D HAVE THUNK IT? HAVE A PIECE OF PIE? IT'S PUMPKIN."

his handle, and he needed some assistance, he said, to get a line on a bunch of box-car robbers who were doing a land-office business in that community.

"Night after night cars were broken into, either at the freight-houses or in the yards, and stuff of all kinds carried off. It was getting fierce—the company was getting about all they wanted of it.

"I suggested that maybe employees of the road themselves were doing the frisking; but he rather thought not, as he said he had been watching the daily life and habits of every man and his family to the third and fourth generation, who ever even applied for a job with their company. No, he thought it was a gang of home-talent pilferers who did but little else and had it down to a fine system.

"What he wanted me to do was this: If I would beat my way back and forth, night after night, between St. Jo and Rushville on the south, and Amazonia on the north, keeping both eyes peeled for the thieves, it would give him more time to watch the yards.

"It was strictly a commission contract, he said; no catch-a the t'ief, no make-a the mon', but if I happened to get next to a clue that would lead to the identity of the rascals he'd undertake to say that the company would do the right thing by me.

"I didn't much like the idea of riding freights but there was nothing else for it, so I hired to him for a week and got my assignment—a train then making up in the lower yards for the Southwest. It was a clear, warm night—only three weeks ago, you know—we drilled over and took a prospect along the train for broken seals or suspicious characters loitering around, if we could find any; at the same time keeping out of the sight of railroad employees.

"Everything looked all correct and regular. We examined every car; nothing doing.

"Byers told me where I could find

him if anything turned up, and rambled for the Hannibal yards to inspect a train going out over there. I ensconced myself in an empty on a parallel track then, and did some heavy sleuthing.

"Fitz Souders, secret service! That was me. And, Aunt Annie! Didn't I have the good luck that night?

"Why, bo, it was all cut and hung on the line for me! It was too nice for anything.

"When the train started I slipped out of the empty and slid in under a car and I'll make you a jurat that we didn't go a distance of twenty car lengths until a man hopped up out of the dark onto the very car I was stowed away under, and began to juggle with the door. By moving along the rods a few feet I could have reached out and grabbed him.

"He clung on while they were creeping out of the sidings, and then he drew up his legs and disappeared. I guessed he had got the door open and crawled inside. Great business, wasn't it?

"All I had to do was watch out for the first package that bumped the ballast; if he threw anything out, get off and camp by it till somebody came after it, then see where it went. If he didn't throw anything out, then I would simply go on and on to see what he did do. It was an easy voyage either way for Hawkshaw Souders.

"NOTHING BUT AN OLD WOMAN, BLIND IN ONE EYE."

"Along down the bottom, a little ways below the yard-limit post, my pirate began to get busy. He heaved out a box of canned tomatoes or lemon extract or something, and the minute I heard it bump the gravel I gathered myself together to follow it.

"Ever get out from under a box car going a pretty good hickory? It's hard on the features. I guess that train wasn't running over twelve or fifteen miles an hour, as they had a fair string of loads and only one engine, but I plowed up the road-bed with my nose just the same.

"I tried to light clear of the ballast and did, all spraddled out, in the raspiest

lot of weeds I ever mowed. Didn't break anything, though, by good fortune, so I crawled a little farther into the tall timbers and laid low.

"The pick-up party must have been ready and waiting, for it wasn't more than five minutes before two fellows came sneaking along the side of the track looking for spoils. Hist-sh-sh! *Sherlock,* that was me! D'rectly they came back carrying a box between 'em, and I slipped along behind on their trail.

"There was a wagon road a short distance back, and there they had a horse hitched to a delivery wagon, waiting. I burrowed under a near-by culvert and hid while they loaded up the rest of the stuff.

"The fellow who had thrown the loot out of the car evidently got off himself with the last box, for there were three of them when they finally drove off. I hope he had better luck getting off than I did. If he didn't he lost some hide, I'll bet.

"I loped out after them when they started, keeping far enough behind to be out of sight in the darkness and close enough to not lose them. They didn't go up through South Town; they went round back of the packing houses along a by-road through the river-bottoms, striking the end of South Fourth Street. We didn't meet very many people, and it was dark enough so that what few we did meet didn't likely see me, and I never lost that grocery wagon not for one minute.

"Try dog-trotting six miles over a country road once. Phew! *Hawkshaw* was pretty much all in when they landed up at last in an alley quite a ways up in the village, but it was great sleuthing for an amateur. Fine!

"And say! Where do you think they stopped? It was the same place the guy had sloped to with the white dog.

"I was just naturally too tired to wiggle my little finger when I got that far, and the thought of drilling away beyond Sixteenth Street to see Byers, and report, was beyond me. I couldn't do it; at least, not then, and I didn't have the price of a car ride.

"The chances were that he wouldn't be there, anyhow. So I dragged myself over in the lee of a foundry or something close by, made me a bed on some scrap-iron and went to sleep.

"Did I sleep? Huh! It was sun-up when I woke up. I had quite a nap, and I was so stiff and sore that I squeaked and whined in the joints like a load of wood in Arkansas.

"Aunt Annie! Railroad detecting is wearing on the human frame. I was flat broke and hungry as wolves and so bears, but I crippled over to Byers's boarding house and they said he was there, but had gone to bed.

"I said I had important news from the front and demanded entrance. I suppose they thought I was a Black-Hand envoy from the looks of me, but they finally permitted me to go up to his room. Byers, himself, didn't know me at first, as I had disguised myself in the face considerably when I fell off the train, but he got a shove on himself when he heard me tell my little story.

"I related the whole thing, including the stealing of the dog, which he hadn't heard about before, and it made a hit with him throughout.

"'That's the checker!' he said, rolling out and getting into his clothes. 'We'll go right over and pinch the whole works. You're there in a thousand different places. Bully!'

"'Here now,' I said, somewhat raucous, 'what do you think I am? A tin soldier? How much breakfast do you think I've had? And how much money do you think I've got?' I turned my pockets inside out to demonstrate my embarrassed condition, financially, and he rallied like a man coming out of a stage faint.

"'Etta,' he bellowed down the stairway, 'get this man a square meal on the table about as quick as you ever did anything in your life, and send the kid to the saloon after a can.' That was sounding something more like it, then he said to me

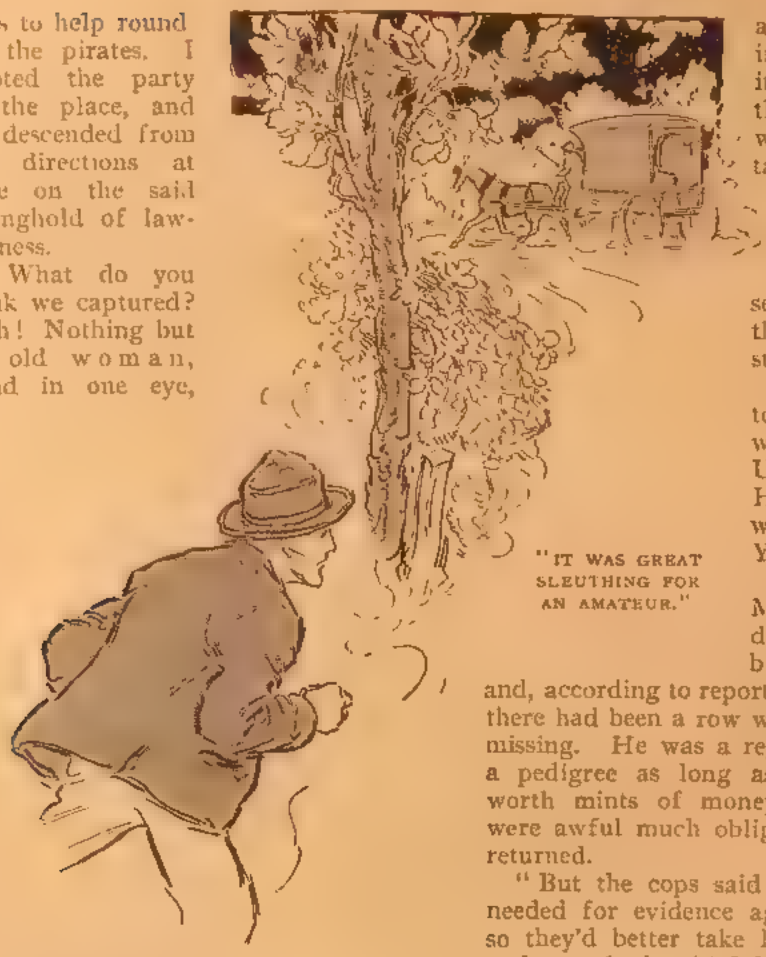
"'By George, I never thought but what you'd had your breakfast. You'll have to excuse me this time.'

"I couldn't do otherwise, and I'll let you guess what I did to that breakfast and that bucket of beer. Afterward I felt different.

"We took a car for police headquarters and got a couple of plain-clothes

cops to help round up the pirates. I piloted the party to the place, and we descended from all directions at once on the said stronghold of lawlessness.

"What do you think we captured? Huh! Nothing but an old woman, blind in one eye,



"IT WAS GREAT SLEUTHING FOR AN AMATEUR."

who took on most pitiful; said she was a poor widow and had only one son, who worked for the street-railway company, laying track.

"We ransacked the house from cellar to shingles, and the only thing we found was the white bulldog tied in the coal-shed. He was black and blue from kicks and cuffs, and the old woman said he had come there several days before as a [illegible]

"Her son wanted to keep him for a watch-dog, she said, as they'd been losing their coal out of the shed. The whole neighborhood gathered around, as is usual, and testified to the old woman's tale and said slighting things about the mullet-headed minions of the law in general for descending on a poor widow woman in any such fashion.

"The plain-clothes men began to look sideways at me like they thought I was a candidate for the insectorium, and if it hadn't been for the bulldog it wouldn't have taken much argument to convince me I'd dreamed the whole plot myself. There wasn't a thing the least bit suspicious, even.

"Anyway, we took the dog and went over to the Union Station. Had they lost a white bull pup? You bet they had.

"He belonged to Miss Gladiola Godiva, of the Bluebell Burlesquers, and, according to reports already received, there had been a row when he showed up missing. He was a registered dog, with a pedigree as long as a dry Sunday; worth mints of money, they said, and were awful much obliged for him being returned.

"But the cops said no; he might be needed for evidence against the thieves, so they'd better take him to the station and consult the chief first. In the meantime the railroad company could wire the young lady and let her know about it if they so desired; there wasn't any harm in that.

"On the way to the police-station, I made friends with the dog. It was a case of affinities with him and me; love at first sight.

"While the cops were out looking for the son that worked on the street railway, Byers and I loafed around the station and I doctored the bulldog up with some liniment for his bruises, and rustled him some bones to gnaw. That's the way to get on the oozy side of man or beast; get 'em something to eat.

"When they finally brought in the fellow we were waiting for, the white dog and I were side partners. You ought to have seen him growl and show his teeth at the guy. It was plain that he didn't like him.

"As for me, I'd never seen the fellow before. He wasn't one of the three in the grocery wagon, I could swear to that; neither was he the rooster that swiped the dog from the baggage-room. I told them so as soon as they brought him in.

"Under the circumstances they couldn't do anything else but turn the fellow loose after asking him a few questions. His version of how he got the dog tallied with his mother's story straight enough, so they let him go.

"Byers hadn't been mixed up in it at all while they had the man under fire. He'd kept himself out of sight; so when the fellow walked out of the station, Byers sauntered after him, giving the rest of the push the wink.

"As for me, I didn't know just exactly what to do next myself. It was considerably past eat-time; I was broke, and nobody seemed to be falling over themselves to invite me out to lunch.

"I was getting more disgusted every minute. Finally I got up to take a saunter out into the residence district on a small matter of business, when I heard the desk-cop talking to somebody over the phone.

"'Says he don't want the dog, eh? Oh, her husband! I see. D'you fellows want him down there? No; we've got no use for him. I don't know about that. No. Yes. Well, all right.' Then he turned around to me and, seeing I was interested, said:

"'They got a wire from that showgirl's husband, and he says he's glad the dog's lost; hopes he'll stay lost. Says his wife hasn't got the slightest use for a dog anyhow, and he's more bother than he's worth.

"'He asks us to ditch him on the quiet, and he'll consider it a favor. The baggage outfit don't want him, nor anybody around here, so I guess it's the soap grease for his.'

"'Give him to me,' I said. 'I'll take him.'

"'Sure thing,' he said gladly. 'Take him along and welcome.' And that's how I happened to have another mouth to feed in my family.

"Bench was the name engraved on his collar, and he wagged his piece of a tail when I called him by it, and went with me like he'd already made up his mind about the matter. We drifted out around town a while, acquiring thirty-five cents in real money during the same by means of the usual confidences confided to the right parties. Some gave up easy, an' some didn't.

"Then we entered the odoriferous confines of a chile-bazaar, and once more stayed the maddening pangs. Somewhere along about six o'clock we ran across Byers.

"'I've been looking all over town for you, man,' he said. 'Where've you been? How'd you vamose with the dog?'

"HE DID IT SIMPLY TO GET SQUARE FOR A FEW KICKS HE'D RECEIVED PREVIOUSLY."

"I told him how it was, and asked for news. Nothing doing.

'I followed that man all afternoon,' he said; 'and, by George, if he's crooked, he's a slick one. First he went home and had his dinner. He was still there when the one-o'clock whistles blew, so I supposed he wasn't going to work in the afternoon.

"'I had it sized up that he'd slip some word to the gang, if he's mixed up in it in any way, so I hung around in the neighborhood. He came out finally and slouched over to Sixth Street to a saloon, where he loafed the rest of the time, playing cards with the bunch of rounders that hang out there; nothing suspicious about that. It looks like he's what he claims to be.'

'You go ahead with your regular work around the yards,' I said to Byers, 'and I'll camp on the trail of these people. I've got nothing else to do. I know that's where the wagon stopped that night, at least.'

"'And, by the way,' I mentioned casually, 'you couldn't loan a poor devil a dollar, could you, till pay-day? This detecting business is the most appetizing line I've been in lately.'

"'I'll make it a five,' he said, grinning; 'and good-by, if I never see you again.'

"I suppose he thought that, with that much money in my possession, I wouldn't lose any time catching a steamer for Europe or some other seaport for the idle rich.

"'Good-by,' I said. 'Leave your address, so I can write you the particulars when I jug the pirates.'

"Bench is the boy that really did the work, though, and he did it simply to get square for a few kicks he'd received previously. That same night, about midnight, we two of the secret service were nosing around in the alley back of the place under suspicion, when Bench began to growl.

"He didn't bark, I should say not; he's got too good blood in him for that. He just bristled up his bristles and rumbled in his chest and prowled off up the alley.

"I chased along behind him, and three back yards away he slid under the fence and pounced onto a man who was drawing some water out of a well. There was a succession of noises, growls, curses, and grunts, and I hurried through the gate to pull the dog off.

"I thought he was overdoing the sleuthing business a little. Just then another guy came out of the kitchen door of the shanty, and in the light from a lamp inside, which streamed out, I recognized him as one of the pirates in the wagon I'd followed up-town the night before.

"What do you think? Before I even stopped to consider the consequences, I bustled up and swung at the fellow's head; and I'll never tell the truth again as long as I live if I didn't catch him just right, and down he went like a log. I'd knocked him out.

"Aunt Annie! Wouldn't that give you a start? I didn't stop at that, though; I sailed right into the other one, and Bench and I between us had him down and begging for mercy in short order.

"He was a good deal too noisy about it, so I choked him till his tongue stuck out. I took it for granted that there wasn't any more of 'em in the house, or they'd have come out by that time; so between Bench and me we dragged and worried the guy into the kitchen, where the first thing I saw was a piece of rope clothes-line, with which I tied his hands and feet. Not until he was tied good and solid did that persevering dog let up chewing on him either, and him bawling murder.

"Then I left Bench licking his chops and standing guard, while I went out and brought in the other victim. Him I roped up also, and the trick was done. Slick work, wasn't it? Hawkshaw Souders to the good! Modest blushes.

"The place was a two-room shack with not much furniture in it; a wooden bedstead, a table made out of a goods-box, a coal-oil lamp, and some rickety chairs. There was a thirty-two caliber revolver on the table, and what was left of a can of beer.

"I attended to both; then I searched the pirates. They didn't have much on them; some small change, pocket-knives, and makings for cigarettes.

"I was up against it, now after I'd caught the rascals. I was afraid to

leave them to go after a cop, and afraid to start with them to the station for fear they'd get away.

"I knew I couldn't hit the side of a warehouse with a pistol, and they looked mighty good to me, tied hand and foot, after I'd cooled down a bit. Mighty good!

"We didn't hold any conversation. The only thing said was after the one I'd slugged woke up and began to enjoy himself once more by looking around—the one Bench had it in for—and remarked:

"'I wish I'd a killed that dog last night instead of listenin' to you an' Sam.'

"Aha! So Sam wasn't so innocent after all. Sam was the old woman's son. That was all that was said. They just looked the rest of the time. Bench laid himself down contentedly and went to sleep.

"About three o'clock somebody drove up out in front with a wagon, kind of quietly. The pirates heard it and exchanged looks.

"'It's all off now,' I thought to myself. 'Here comes probably eight or ten more, and they'll eat the said *Hawkshaw* and his dog Bench alive.'

"I sneaked to the window and looked out. It was as dark as black cats, and I couldn't see but one man. He was just coming in.

"I shoved Bench back with my foot,

"I LEFT BENCH LICKING HIS CHOPS AND STANDING GUARD."

and laid low behind the door with the gun. When the guy lifted the latch, both of the pirates in the kitchen sung out to him to look out, but it was too late. Too late for the newcomer, for I'd already whanged him across the coco with the barrel of the pistol, and down he went like a steer under the hammer.

"I must have been pretty scared and hit him a little too vicious, for it took the city physician the biggest part of the next day to bring him out of it. I didn't take any risks then, though; I tore up a sheet and tied him up, too.

"In mussing up the bed thereby, I found some of the loot, silks and laces and things, stowed under the covers. There were also several cases that looked like canned goods on the floor underneath. I had the right parties all right, you bet.

"Along about then I had an idea, and before it got cold I put it into execution. I'd load up the works and take 'em in the wagon to the police-station.

"Before I had time to think it over and back out, I had muzzled the three with rags tied around their faces to keep them from yelling and disturbing the neighborhood, and had two of 'em loaded on. Then I put Bench on the wagon-seat to stand guard, while I got the last victim and what odds and ends of the plunder I could load up in a hurry.

"Were they surprised to see us when we drove in to headquarters? Aunt Anne! You ought to have seen 'em

"It ain't often that somebody drives up with a wagon-load of pirates, all tied and muzzled, that he has caught with the assistance of a lone bulldog. I was considered the prize-winning fool for luck; either that, or a thief-catcher.

"When the news reached Byers, he wouldn't believe it; but when they went over to the shanty and found a cellar full of robbers' loot, he thought it was about the hottest catch of the season. The guy who had brought the wagon turned out to be a fellow that operated a small store, and had always been considered respectable. He disposed of the most of the stuff at regular prices, and they had been enjoying quite a nice business

"They're all three in the hoe business now, down at Jeff City. The old woman and her son Sam couldn't be proven guilty of any part in it; and if there were any more of the pirates, they got away.

"We got three of them and scared off the rest. Byers put it pretty strong to the company, I guess, for they came back as substantial as I could have expected, and then some.

"They also offered me a steady job, sleuthing, and I took 'em up. That's what I'm doing now, together with Bench here.

"Bench can smell a crook across a country. Shake hands with Bench Souders, late of the Bluebell Burlesquers."

I made overtures to pat the white bulldog on the head, at which his bristles rose noticeably and he mumbled something in his throat.

"Excuse me!" I said with some trepidation; "I think I hear my train coming. I reckon I'd better be hiking."

AN OVERWORKED ENGINE.

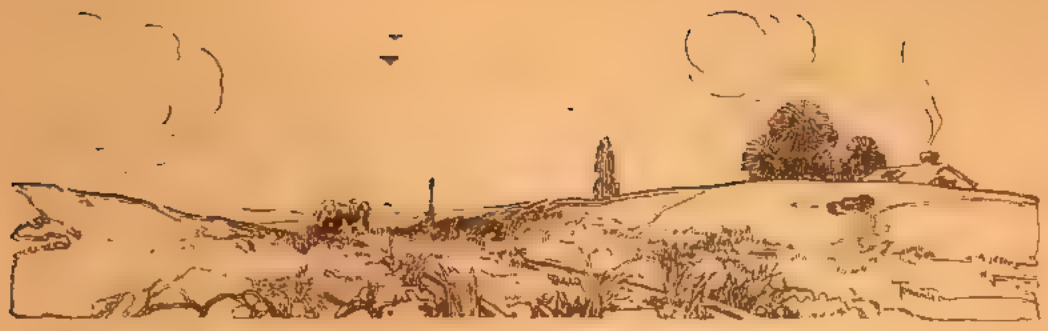
ENGINE capacity is a wonderful thing, and is, by some cynical railroad officials, believed, at times, to have a more or less direct proportion to an engineer's capacity. At least, this was so in the old days. Doubtless the belief is worn out by now. Illustrating the one-time justice of its existence, an official of the Rock Island tells a story.

The incident happened several years ago on a line of road near Port Arthur, Texas. There was a very heavy grade in this stretch of track, and the company had rated the engines at six hundred tons over this grade. The engineers said this rating was all right, but that the engines positively would not handle more than the rated load

One night a freight conductor on a northbound was ordered to take along sixteen flat cars from the division station to a stone quarry twenty five miles up the line. This would increase the tonnage over the rated capacity of the engine, and would compel the crew to double the grade. Before the train got under way, however, an order came canceling the previous one, and the flats were uncoupled.

The engineer did not know of this last order, and he dragged the train along, and finally stalled, claiming that his tea-kettle could not pull the extra empties. The conductor went forward and told him in English, French, German, and Apache that he was not pulling any extra load, and if he didn't get her under way quicker than a hop, skip, and a jump there'd be things doing when they pulled in.

The engineer gave her a jerk from a dead standstill on the grade that pretty near carried her in one jump over the mountain. Then he let her rip. He had loafed around and wasted half an hour, but he made the division station ten minutes ahead of schedule



Pathways of the Wheel.

BY GEORGE HEBARD PAINE.

WHEELS came long before steam to drive them, and with wheels came roads. Even the crudest cart, rumbling along on cross-sections of tree-trunks, required a better track than the path for foot travelers or the trail that the horsemen followed.

Rome, the great pioneer in many things, first saw the need of roads and her highways are still unequaled. Many of them still exist after nearly twenty centuries of use. We in this country are in our infancy as road builders, but we are learning. Meanwhile, it is profitable even for railroad men to know something of what the world has done to make smooth the pathway of the whirling wheel.

The Romans Built the First and Greatest Roads, Macadam Led the Way in England, and We in This Country Are Learning from Our Mistakes.

THE Carthaginians made highways through Spain and across the Pyrenees, and the ancient Egyptians hauled the material for their huge monuments over stone causeways; but the first great road makers of the world were the engineers of the imperial city on the Tiber. Indeed, Rome's wonderful system of communications was essential to her power. Her roads were the arteries of an empire which could not have existed without them.

The full extent of the Roman highways can never be known. We have a fairly complete record of the military and post roads, whose total length was many tens of thousands of miles; but we can only guess at the number of the branch routes for commercial use, constructed under local auspices.

When it is remembered that the hand of Rome's authority was felt throughout Spain, Portugal, France, Belgium, a large part of the Netherlands, and Germany; in Switzerland, Austria, Hungary, the Balkan states and Turkey—even into Persia, Arabia, Syria, and the whole northern part of Africa—and that in all of these places she had direct routes of well-built highways, something of the truth may be realized.

Further, consider that in most of these lands she found an almost trackless wilderness, inhabited by skin-clothed savages of the Stone Age; that when her empire fell, she left them well advanced toward civilization; and that she did all this largely because she built roads. What a lesson it teaches!

Roads Built for All Time.

The Roman road was not an accidental track, a quagmire in the spring and autumn and a stretch of choking dust in summer, such as prevails to-day over the greater part of this enlightened land. It was a carefully surveyed route, with the easiest grade that the country would allow, and was constructed of permanent materials in a permanent manner. The engineers of the Cæsars were not graduates of technical schools, but they knew the constructive value of broken stone, gravel, clay, and cement, and how to use each material to advantage.

Like her laws, her literature, and her architecture, Rome's highways were not made for a day, but for all time. Their prime purpose was a military one—to keep her legions in uninterrupted communication, for mutual support and for the gathering of supplies. Subsequently, when the *pax Romana* was secure, they served other uses—those of the postal service and of commerce.

Permanent stations at conventional distances were established through their length. These were originally military posts, but were gradually converted into halting-places for travelers and centers of trade and population. A fixed number of horses and carts, for the public service and for hire, was maintained by the state at each post. That this whole magnificent organization should have disappeared from the face of the earth for a period of twelve hundred years shows to what a depth of degeneracy the people of Europe descended during the Dark Ages.

In road-building, the Roman engineers began at the beginning—the foundation. Upon a suitable bed, at times excavated to a depth of three feet, they laid large stones, closely packed together and hammered tightly into place. This was the universal method; but above the foundation the construction varied with the location, with the amount of traffic which the road must carry, and with the materials available.

A common plan was to cover the first course of large stones with a layer of clay and gravel, then a layer of nearly pure clay; and then, as a wearing surface, coarse gravel approximating to cobblestones in size. When such materials were at hand the foundations were often set in something resembling hydraulic cement, and the wearing surface was sometimes treated in the same way. But always the structure was made impermeable to moisture; it was rounded on the top, and the rainfall was taken away in a large ditch. Blocks for mounting horses were often provided on the berm (the shoulder of the ditch), formed by heaping earth or stones into a pile.

Pavements as Good as the Best.

In cities, where the traffic was heaviest and most concentrated, Roman pavements are found covered with sized stones as a wearing surface, which are models of good workmanship; not so smooth, perhaps, as the average city pavement of to-day, but far better constructed, and infinitely superior to the cobblestones which were so common in American cities a few years ago. The blocks of which these pavements were formed were from twelve to fifteen inches square, and were often laid diagonally to the direction of the traffic, to reduce the wear on the edges of the stones and to minimize the shocks to passing wheels.

The first great revival of road-building in Europe came with Napoleon, one of the greatest organizers of history. To be sure, there were sporadic instances thirty or forty years earlier in England and Scotland, where the most highly enlightened people seem to have begun to find the conditions of travel intolerable. Novels and letters of the latter half of the eighteenth century bristle with accounts of the badness of the highways in Great Britain and all over the Continent.

Switzerland, too, had paid a little attention to the subject at about the same

period; but the first large work of the kind was Napoleon's reconstruction of the Simplon military route into Italy. Here was truly a strange piece of retributive justice; a man of Italian blood builds roads to carry the tricolor into the territory of his ancestors, just as those ancestors built roads to carry the Roman eagles into France two thousand years before!

In the year 1800 the stage-coach was still the slow and lumbering affair of the previous century, not the flier of twenty years later drawn by thoroughbreds at twelve or fifteen miles an hour. Ladies in London or Paris were still carried to balls and routs in sedan chairs, and the modern rule that a gentleman who walks with a lady shall always place himself next to the curb was then absolutely necessary to protect the silks and furbelows of the gentler sex from the filth splashed across the sidewalk by horses and vehicles.

The revival of interest in roads at the beginning of the nineteenth century seems to have been pretty general throughout the civilized world — except in the United States. John Macadam, the Scottish engineer whose name has become the symbol of good highways, was studying the question from a physical and economical standpoint, and a few years later was to announce the theory and demonstrate the method which have since remained the standard of good practise.

Macadam Maker of Modern Roads.

As with most worthy inventions—for the macadamized road must really rank as a great invention—there was, at first, a storm of violent opposition. Many communities in the north of England and in Scotland—and in other places, too, where they ought to have known better — utterly refused to countenance any improvements. They didn't wish good roads! They wouldn't have good roads!

And the reasons given in support of the opposition were quite as ridiculous as the opposition itself. But the facts conquered, as they inevitably will. All that Macadam needed to demonstrate his ideas was a poor road—the poorer the better for his purpose. Given some stones, and some old men or women or boys, he did the rest with his little hammer.

For it was not the least of his discoveries that more stones of the proper size could be broken if the operator was seated and used a hammer weighing not more than two pounds, than with a ten-pound sledge. This made it possible to employ a class of labor which was practically useless for any other purpose — in other words, the poor of the parishes who had been thrown upon public charity through their inability to earn a living.

Profit Beyond Money Measurement.

With the economies introduced by Macadam, he was able to reach the most astonishing results. It is recorded that he rebuilt a road eleven miles long, near Bristol—which was so utterly bad that its abandonment had been practically decided upon—at an expenditure of only two hundred and seventy-five dollars a mile. Under favorable conditions, good roads — perfect roads — were derived from nearly impassable highways at a cost of four or five hundred dollars a mile. In the maintenance charges, too, he effected a revolution, reducing the annual cost of repairs from as much as two thousand dollars a mile to three hundred and fifty dollars, and even less.

These figures are striking enough, but the most important results of Macadam's work are not susceptible of being expressed in terms of currency. Paths which could only be used by horses loaded with panniers—or, at best, for unwieldy carts carrying a few hundred pounds—were, for the small sums just mentioned, converted into roads over which a single horse could, without straining, draw a cart-load of more than a ton, exclusive of the weight of the vehicle.

Although Macadam had been at work for many years, it was not until about 1820 that he publicly explained his ideas, which were generally accepted by engineers; and except for one detail they prevail to-day.

First and foremost, he insisted upon the use of nothing but *small* stones, his

standard weight being six ounces. Next, he forbade the use of binding materials, such as clay or earth of a sticky quality. For the rest, he depended upon hammering and rolling the stones together until they became so interlocked that they formed a solid mass.

His plan of construction varied only in making roads thicker or thinner, according as the traffic they had to bear was heavy or light. In this particular he allowed himself the greatest leeway, running from three inches to eighteen inches in depth of "metal."

Only at one point, as has been said, have road-builders made a departure from Macadam's methods, and whether the departure is an improvement is by no means certain. It consists in laying a first course of large stones—an idea which originated with Thomas Telford, a contemporary of Macadam, and a British engineer of great accomplishments.

Slow Beginning in the Land of the Free.

Telford made his first course of stones with pieces from six to eight inches deep and not more than four inches wide, laid close together on their widest edges, and filled in with smaller, wedge-shaped stones. While Macadam curved the top of the ground before laying any stone, Telford leveled the surface and then formed the curve by placing the deepest rocks in the middle, and gradually reduced the depth of the foundation toward the ditches by using smaller stones.

In all other essentials the two methods agree, and a perfect road may be built in either way; but there is a certain superiority in the Macadam plan because of its greater convenience and the possibility of building thinner roads for light traffic. Sometimes, too, it is difficult to secure large stones of the right size for the Telford foundation without greatly increasing the cost; whereas, with the Macadam plan, any available stones may be broken to the required dimensions.

For fifty years the highways of western Europe have been, in general, as perfect as human ingenuity and experience could make them; but we in the United States are still in our infancy as road-makers. Instead of being well advanced toward the European standard, we are struggling with the elementary problems of the subject.

Shall the Federal government take active steps or not? Is it a proper function for the individual States? Ought a county to interfere with the roads in the various townships that compose it? And if a few farmers in a township prefer bad roads to good ones, are their neighbors powerless to effect any improvement?

These are a few of the questions which oppose the wheels of progress in the United States. In certain parts of the East we have fairly good roads in the neighborhood of the larger cities; in a few of the Eastern States there are good, working road laws; but in the "imperial" State of New York the old, useless plan of working out the road tax still exists in many communities, and has only been abolished in certain sections after a prolonged, heart-breaking struggle.

Most States hold to the practise of electing "pathmasters"—they are called by different names in different States, but this title best expresses their duties—who assess the amount of the road tax and call upon the inhabitants to work it out, or to pay a certain amount of money toward that end. A description of the working out of a road tax is of interest because it is the method which obtains over nearly the whole of the United States, though it could not possibly be more certain of resulting badly if it had been intelligently designed for that end.

How They Do It in the Country.

The pathmaster is supposed to keep a careful eye upon the highways under his jurisdiction; to see that the roadways are traversable, and that the bridges shall not break down. He is granted (by the county or township authorities) a nominal sum of money for repairs and improvements, which sum is assessed proportionally upon the taxpayers in his district, and for the collection of which the pathmaster is responsible in a certain measure. He is only partially responsible, however, because the statutes allow

the citizens to comply with the tax in any one of three ways:

First, they may themselves work on the roads for the number of days equivalent to their taxes at the (usual) rate of one dollar a day.

Second, they may hire substitutes to work for them.

Third, they may pay cash to the pathmaster, and have done with it.

As a result of this, nearly every one either elects to work out the tax or hires some one to do it for him. If the second, some very amusing bargains may be made. A, the taxpayer, says to B, the hireling: "If you'll work out my tax, I'll let you cut a certain number of cords off my wood lot;" or B says to A, "I'll work your tax if you'll let me have a certain quantity of skim milk for my hogs."

If A has nothing that any B will trade for, then A must pay cash for his labor, which, it may be taken for granted, is always below the market rate; and B will very probably be one of the town drunkards.

There is always a small minority, however, who pay their tax directly to the pathmaster, and this is the chief jewel in his crown. He is almost always a penny politician with a longing for office, and here is his chance to make friends. This tax must be spent upon the roads, and although five or six hours' desultory scratching by Tom, Dick, and Harry does not amount to any sort of a day's work, nevertheless, a vote is a vote, they are constituents, and they know their value at the polls; they also know that the pathmaster has his eye on the place of poor warden, and there is an easy living to be made off the poorhouse.

Its Good Points.

The pathmaster—who seldom knows anything about road building—cannot live by his pathmastership alone; he has some other business. Of course the dull seasons of the year are selected for working on the roads, when, at the same time, it is agreeable to be out of doors. A certain day is appointed for working out the tax.

It even has points of superiority, because the women folks aren't around to bother and interfere. The "work" is conducted in a delightfully companionable manner. No bossing; come late and leave early; all the good old stories polished up and put into new clothes, and perhaps a bottle slyly tucked away in the "bag" of your shirt, particularly if the town is "temperance."

Such a system is nothing less than a blot upon our American civilization. Its results are manifest, and are known of all men who have ever been forced to drive or ride over an ordinary country road in almost any of the United States in any but the most favorable weather.

And He Missed His Train.

The writer has a vivid recollection of missing a connection in the northern central part of the State of New York, in the heart of a splendid farming country, during the early part of the month of May. It was possible to correct the trouble by driving twenty miles across country to another railway, and there were five hours in which to do it; so a good pair of horses was hired, with a driver whose ambition was fired by the promise of a substantial honorarium if he caught the train.

But he did not get it. There was not a foot of the way over which it was proper to trot a horse, and for at least three-fourths of the drive it was physically impossible to goad the animals beyond a walk. When the end of the journey was reached, something more than six hours after the start, they were just able to stagger into the stable where they were to spend the night.

There was no excuse for this condition of affairs. There were probably enough stones immediately on and underneath the surface of the road to have made a driveway fit for a park, if only some one could have been found to pick them up, break them, and hammer them together.

It is certainly not fair to lay all the sins of bad roads upon the pathmaster's head. He is not so much to blame as the system under which he works, which is maintained through the ignorance or the indifference of the people who make the laws. It is unfair to criticize subordinate officials when a commission appointed by the Governor of one of the

leading States in the Union is able to report, in almost so many words, that it would be better to build electric railroads on the highways than for the State to take any steps toward making them traversable for horse vehicles. It may sound incredible, but that such a report was made to the Governor of Ohio, William McKinley, in the year 1892, is as certain as that it was printed for general distribution!

But there is a rift in the clouds. Kentucky has benefited by an excellent system of roads for more than a generation; to be sure, they were delivered into the hands of a conscienceless "ring" for many years, and it required a mortal struggle to get them back; yet the people had the use of them for the whole period.

New Jersey, so often the subject of contemptuous flings, and so seldom deserving of them, was the first State to recognize the slough in which she was sunk. In 1868 she passed an act which permitted any county to bond itself for the purpose of building good roads. It was not accomplished without a hard fight against the inertia and ignorance of a large portion of the people, but the Governor and a majority of the Legislature happened to be intelligent and far-sighted men, so that New Jersey has for the last thirty years been working under an efficient road law.

Although the bicycle had a distinct and memorable effect during the furor which followed the introduction of the "safety," this, like its cause, was temporary, and the efforts of the L. A. W. seemed destined to an "innocuous desuetude" until the appearance of the automobile. Good roads were desirable with the wheel, but they are absolutely essential to automobiling, and the class of society most particularly devoted to its attractions has more time and money to spend for the improvement of highways than had the bicyclists of ten years ago. The ease with which a rich man can, with an automobile, reach his office from a suburb twenty miles away has multiplied the number of people who are willing to escape the crowding of a city life even under some inconvenience, and the movement has only begun. The demand for better roads is promoted by this tendency, which is certain to increase in proportion as the roads are improved.

STEEL TRUST'S RAILROADS.

One of Them Has the Lowest Operating Cost in the World, in Proportion to Net Earnings.

THE United States Steel Corporation as a railroad owner is not a familiar figure before the public. The usual impression is that this vast corporation is the great feeder and wealth-producer for the trunk lines that carry its materials and products. As a matter of fact, if all the railroads of the Steel Corporation, including branch lines and tracks, sidings, and systems owned by subsidiary companies of the corporation were placed together, a line 2,942 miles would be the result. The corporation owns 960 locomotives and 45,682 cars of all kinds.

The Delaware, Lackawanna and Western, whose stock is the highest-priced in the world, falls below this by 300 miles mileage, 736 locomotives, and 29,414 cars of all kinds.

According to the Brooklyn *Eagle*, the Bessemer and Lake Erie, a road owned by the Steel corporation, holds the world's record for low cost of operation and net earnings.

"It has 205 miles of main line. The road was built for the carriage of iron ore landed from ships from the lake ranges and for the transportation of fuel bound up the Great Lakes. Freight density has attained the record of 5,748,147 tons one mile per mile of road.

"The average revenue train-load last year was 937 tons. The average train-load bound to the Pittsburgh district in the busiest period of last year was 1,406 tons.

"Almost 10,000,000 tons per annum have been carried by this ore and fuel road, which also does a general freight and passenger business. In the past year the Bessemer and Lake Erie Railroad carried as much tonnage as was cleared from this port in the last fiscal year for all foreign ports.

"In a normal year this railroad has earned $25,924 for each mile of road. The highest net earnings in one year came to almost $3,000,000."

THE SPIDER OF PALERMO.

BY EDWARD BEDINGER MITCHELL,

Author of "An American Knight Errant," "The Yellow Rose," Etc.

Some Interesting Personages Enter, and a Private Conference Is Intruded Upon.

SYNOPSIS OF PREVIOUS CHAPTERS.

STEPHEN PAGET a retired newspaper man, and his friend Marshfield are attracted by the sight of a beautiful girl in a poor building opposite Paget's apartment. A few minutes later a middle-aged woman in the street below is heard to scream hysterically, and on Paget rushing down to find out the reason, she says she has seen the evil eye, indicating as the place the room in which the two men have just seen the girl. Paget escorts the woman to her store in the basement of the cheap house, where he learns that her name is Rosa and that she and the girl, Maria Bigottina, live in the room above. Some days later, Paget finds the girl in a park, homeless. Rosa has disappeared and Maria's brother is also lost. Paget arranges for her to stay at the Walton until her people can be found. He goes to interview the landlord, who has turned her out, and in her room has an adventure with several Italian cutthroats. Dining with Maria, he is warned by a Hungarian orchestra leader not to take the first cab or walk when going home.

The cab they do take breaks down, and in the confusion they are actually led into taking the next one. The driver tries to abduct them, but Paget thrashes him, and after seeing Maria to the Walton he changes coats with the driver and goes to the place the latter was instructed to drive them to. He sees his enemy but fails to learn anything. Next morning, with Maria, he dodges the spies and carries the girl to the seclusion of his cousin's home.

CHAPTER IX.

The Man in the Carriage.

WALKING slowly along the street, I felt that I had done a good day's work. In Mrs. Noyes, Maria had found a much-needed friend, and in her house she would be safe—safe for a time, that is—for I did not imagine that a commonplace device like the changing of a cab or two would throw her pursuers permanently from the scent. One easy way to recover it was to watch me. As the thought occurred to me, I involuntarily glanced behind. No one was in sight, and I walked on, half ashamed of my sigh of relief. But it is not comfortable to feel that one is watched and spied on.

However, I could spy as well as be spied upon. Several clues were in my hand, but the one I elected to follow first was the Hôtel Auvergne. At the entrance to the restaurant, however, I turned back. My friend the musician would not be there until the evening. To ask for him would simply serve to draw down suspicion.

I had no idea how many of the employees had been concerned in the last night's outrage, and by asking questions of them I might be merely playing into their hands. I would dine there that night and find some way to interview the violinist.

My intention was not fulfilled. Half a block from the hotel I was halted by a familiar voice, and David Marshfield confronted me.

"I have just come from your place," he began. "I want you to dine at our house to-night."

Began in the August Railroad Man Magazine. Single copies, 10 cents.

"Can't do it," said I, thinking of my prospective detective work. "I have something else on."

"Oh, I know it's short notice, but it's all for your good. I'm always thinking for you, and I never even get thanked."

"What have you thought now?" I laughed.

"I thought you might like to go to Abyssinia."

"Abyssinia! Are you crazy, Dave? Who ever goes to Abyssinia?"

"Nobody that I ever knew," returned Marshfield. "That's the reason I thought you might like to. Everybody goes to Europe nowadays. There's no glory in that."

"I'm not looking for glory," I answered. "I'm looking for pleasure. Is there any pleasure in Abyssinia?"

"How do I know?" asked David. "I never went there. But it sounds like a perfectly good place to me. You'd better go."

I took Marshfield by the arm and led him in the direction of my rooms. "Have you been drinking?" I demanded. "Or do you simply want to get rid of me?"

"Neither. I don't drink — certainly not in the morning -and I am so far from wishing to be rid of you that if you go, I'll go, too."

"And, why Abyssinia?" I demanded again.

"And why not Abyssinia? But, as a matter of fact, there is a very good reason for Abyssinia—namely, my father. You know, he has so much money that he's never happy unless he's making more. Just now he thinks that he can make it there."

"Great Scott, he's not going!"

I stopped short on the pavement, overwhelmed by the vision of the senior Marshfield, the great banker, who for years had never been beyond reach of the blackest and most expensive cigars the market afforded, dragging his portly figure up and down the wild mountains of Abyssinia. If he was going, I for one was not. I knew that great man's temper when his food did not please him.

Marshfield walked on with a snort of disgust.

"Of course he's not. Do you think he's lost his mind? He's heard of a gold-mine there, and he thinks it may be a good thing—railroads, American hustle, awakening of the slumbering Orient, light on the Dark Continent—all that sort of thing—and he wants me to investigate. Therefore, I ask you to dinner."

"Because I won't get any dinners in Abyssinia, I suppose."

"You won't, if you don't go," said David imperturbably. "I ask you because you will meet the man who has the claim to the mine and the concession for the railroad, a big gun from Italy just come over here with all sorts of schemes in his head and a great thirst for American capital and American brains to carry them out. The Marshfield family, he considers, can supply both.

"Anyhow, if the business falls through—and there's a hitch somewhere from last accounts—it won't do you any harm to meet this fellow. He's a big man, they say—commissioner of emigration or something — and if you go to Italy he may make it pleasant for you—a friend of the Marshfields, you know, and that kind of rot."

The last words came with difficulty from David's lips. He was the son of a wealthy and powerful man; he knew it, and for that reason rarely alluded to it. To have David Marshfield consent to use his undoubted personal influence in one's behalf was a great compliment.

In this case his influence meant much. The idea of a trip into unknown Abyssinia in his company fascinated me; even if that wild scheme came to nothing, Italy would be much pleasanter if one had friends at court. For an instant I listened to the voice of the tempter; then the vision of the girl I had left in the house of my cousin rose before me.

"I can't come, Dave," I said. "I'm an amateur detective now."

"You're a what?" Marshfield stopped at the entrance of my apartment and stared at me. "You're a what?" he repeated as I laughed at his obvious consternation.

"Come up-stairs, and I'll tell you about it." I led the way into my sitting-room and sketched for his benefit all that had happened since he last sat there with me.

"Whe-e-ew!" Marshfield's long whistle marked the end of my story. "So that's what you do when you quit a job, is it?" He walked over to the window to look once more at the house which was the birthplace of my adventures.

"I'll tell you what it is." He turned suddenly upon me. "You come to dinner, and we'll go down to the Auvergne afterward. I've got to be home to dinner, and it won't do any harm for you to have somebody with you, if you must move in low society."

"Done!" We shook hands upon the bargain, and Marshfield departed. It was with a distinct feeling of unexpected support that I watched his broad figure swing across the square.

A cynical, humorous calm was his chosen attitude; but no thought of fear ever disturbed it, and the possibility of seeking comfort or safety at the expense of a friend had never entered his head. His company at the Auvergne would be purchased cheaply at the cost of two or three hours of heavy feeding and heavier conversation.

Personally, I had little interest in the kind of talk I knew I would hear that night at the Marshfield table. My own small supply of capital was safely invested in stocks that neither rose nor fell appreciably, and when men spoke of millions as I did of hundreds I was dazed rather than impressed. Nevertheless, as I walked up to the quiet, brownstone house which sheltered the famous banker, I was curious. It must be a singular man, I thought, who could interest that hard-headed financier in anything so imaginative as a gold-mine in Abyssinia.

A carriage drew up in front of the Marshfield door and the figure of a man crossed the pavement, the light from the carriage-lamps falling for a second on the silk of his tall hat. The door the footman opened for him swung shut again as he passed within; and at the same instant my stick dropped from my hand as I wheeled about and stared into the night at the retreating shadow of the carriage.

As it had driven past me, my eye had fallen upon another man who still remained within it. He, too, was in evening-clothes; and, as he leaned forward to light a cigarette, the flame from the match in his fingers revealed his face. It was the scoundrel with whom I had rolled down-stairs, the man I had left in the gloomy courtyard of Barent Street. And now I saw him driving away from the house where I was to dine.

While I stared, the carriage whirled around a corner and was gone. Then, suddenly, I awoke to action. He had come with a companion, and his companion had stayed. I would learn who he was.

Past the astonished lackey at the door I burst, running with unseemly haste up the stairs to the drawing-room above to meet the Marshfield guests. Twelve men were there, twelve men in black coats and white waistcoats — twelve respectable, prosperous, well-fed individuals. Six of them were strangers, and one of the six had come there with my enemy.

CHAPTER X.

Mr. Marshfield's Dinner Guests.

BREATHING heavily, I stood by the portières, my eye traveling over the luxurious room and the decorous group gathered within it. Two of Marshfield's junior partners were there, comparatively young men whom he had selected for the heavy work of adding to his great fortune; standing by the fireplace was a civil engineer, whose opinion was taken as gospel in his profession; a railroad president, who had once granted me an interview, was talking to two strangers. It was all as I had anticipated half an hour ago that it would be—a business dinner into which I intruded by grace of David's friendship.

To me, however, it was no longer an ordinary dinner. With these men I was about to sit down to meat, and one of them was on friendly terms with the villain I had fought once and hoped to fight again. No friend of that man's could be a friend of mine, and I eyed the assembled guests with panting, obvious suspicion.

"For Heaven's sake, Steve, what's up?" Immaculate in evening-dress,

David Marshfield crossed the room. "You look as if you were in a hurry."

"I was afraid I was late," I mumbled, conscious that his greeting had drawn all eyes to me.

With the vague idea of lending strength to my words, I pulled out my watch, consulted it with quite unnecessary interest, and replaced it in my pocket. "It is late," I asserted positively.

David glanced at me with a quick, puzzled frown. "What—" he began, then stopped and took me by the arm. "You're not the last," he said formally. "Let me introduce you to the men you don't know, Mr. Hayes. Do you remember my friend, Mr. Paget?"

The famous engineer looked me over critically as he held out his hand: "Can't say I do, but I am glad to meet Mr. Paget again."

I shook hands with him, internally blessing Dave's tact. He knew that it was not, because it was two minutes after the appointed dinner-hour that I had burst into the drawing-room like one socially demented. That any one would have known, but not every one would have closed his lips upon his knowledge. Instead of pestering me with questions, he was trotting me about the room, repeating introductions until, as I shook hands with one celebrity after another, my excited entrance was forgotten.

"Mr. Paget—Mr. Ghedina; Mr. Marshall—Mr. Paget; and Mr. Rocca—Mr. Paget. You know my father, of course."

Old Marshfield laughed as he grasped my hand.

"You'll introduce him to yourself next, Dave. Yes, I know Stephen Paget, but I never knew him to look quite so flustered before. What's the matter with you, Steve? Afraid you'll miss the train to Abyssinia? Don't worry about that, my boy. It's not going to start before dinner, eh, Mr. Rocca?"

He turned with another laugh to the square-set, black-mustached man by his side. Apparently he considered that he had said something witty, but the point of the joke—whatever it may have been—was lost upon Rocca. His guest's lips, it is true, smiled politely; but his face was quite impassive otherwise as he answered:

"Let us hope not. I like my dinner. Does Mr. — er — Paget, I think — does Mr. Paget expect to go to Abyssinia?"

"Well, if I go, Steve goes, and the rest of it you and the governor will have to settle between yourselves."

I looked with more interest at Mr. Rocca. David had spoken carelessly—he was never renowned as a respecter of persons—but it was clear from his words that this was the big Italian individual who could make it pleasant for me abroad, if he did not send me treasure-hunting into the African wilderness.

There was nothing romantic in his appearance — no traces of gold-mines — nothing which, had I been the slumbering Orient, would have disturbed my age-long rest. He was the Italian counterpart of the American Marshfield, with the same square, determined jaw, the same bulging, intelligent forehead. The lips were heavier and coarser, however; and the figure, unusually powerful for a Latin, showed visibly the years of good living it had enjoyed.

"That is interesting. You and Mr. Paget are great friends, then?"

The words were addressed to David, but his eyes were on me as he spoke—dark Italian eyes, deep-set under heavy brows and shaded by long lashes.

"We have been friends for a number of years," I remarked, a little weary of holding the center of the stage.

"And you would like to go to Abyssinia?"

"I hadn't thought of it until this morning," I answered. "But if all the world is going, I might as well join the procession."

"All the world is not going." Rocca marked the words out with vicious emphasis. "Very far from it, Mr. Paget. But, of course"—he turned with European grace to David—"a friend of yours, Mr. Marshfield, would be most welcome. And Mr. Paget looks like a hardy and courageous young man, is it not so?"

To my vast annoyance, I felt myself blushing—less at the compliment than at the keen scrutiny of the impassive eyes. David saw my color rise, and laughed:

"Oh, he'll do, Mr. Rocca. One does not have to be very courageous around

New York, though. The police attend to that for us."

"Yes, and we are a long way from Abyssinia yet," the senior Marshfield put in abruptly. "I can furnish all the hardy and courageous young men we need, Mr. Rocca. What I want to see is the money in

"It is there," returned Rocca, unruffled. "In due time you will see it."

"There's no time like the present," retorted Marshfield with a touch of sarcasm. "Here's Simpson at last, and we might as well go into dinner."

At the door of the dining-room I stepped aside respectfully to allow the elder men to precede me. One by one I watched them file past, for the most part grave with the weight of years and wealth, all distinguished in some way, none to be connected in the wildest flights of the imagination with disreputable cabmen and shabby attic-rooms.

Last of all sauntered David, his hands in his pockets, his face eloquent of boredom. I kicked his foot as he came opposite me.

"One of them's here," I whispered as he sprang into alert attention.

"One of whom?" David's hands were out of his pockets now, and his face was keen and sharp.

"One of the gang. I recognized that little brute driving away. I tell you one—"

"David! Steve! Come in here, confound you, and sit down. This is no time for secret conferences."

The elder Marshfield's good-natured, commanding tones drowned my whisper, and we walked obediently into the dining-room. He was quite right. It was no time for consultation—it was a time for open eyes and keen wits.

My eyes were open, and I lashed my wits to the utmost limit of their keenness, yet I saw nothing. Two or three places below David, and separated from him, moreover, by the width of the table, there was no possibility of continuing my interrupted confidence. Once I caught his gaze fastened on me in amazed speculation; but I motioned slightly with my head, and he looked away. After that I never met his eye.

It was the longest dinner it was ever my misfortune to attend. My neighbors were Marshfield's junior partners; in their chief's presence they had no leisure for anything so insignificant as the conversation of an ex-newspaper man. From the oysters to the cheese their ears were straining to hear what Marshfield said to Rocca, and what Rocca said to Marshfield. And stupid enough it was, I thought.

Rocca discoursed on the wonders of New York's sky-line; his host joked ponderously; out of the tail of my eye I saw David smother a yawn; and the miscellaneous guests conversed on miscellaneous topics.

I was clinging desperately to the last shred of my patience when the tray of cigars reached me. At the same time David pushed back his chair and walked around the table to me. One of my dinner companions, leaping at the chance to thrust himself closer to the magnates, deserted us in haste for the place he had left vacant; and David fell into the empty chair by my side.

"Give me a light, Steve," he remarked. Then, bending forward to touch his cigar to the match I held out to him: "What the deuce did you mean?"

I glanced along the length of the table. Chairs were rasping on the floor as the guests settled back to the full enjoyment of tobacco, coffee, and liqueurs. No one was paying any attention to the two young men at the foot of the table.

"I mean," I said, "that one of these men came here with the fellow I rolled down the stairs. You can explain that, perhaps—I can't."

David lolled back in his chair and looked at the ceiling. "Who is it?" he asked aloud in a tone of utter indifference. From his attitude one would have thought we were discussing a new commissioner of street cleaning. Usually apparent frankness is the best disguise, and I answered with equal boldness:

"I don't know. That's the funny part. I want you to learn for me."

The words rang through the room as though they had roared through a megaphone. One of the sudden, disconcerting silences which are apt to seize large gatherings had fallen on the company. Every one heard me, no one had more important things to occupy him, and all turned toward us.

"What's that?" cried Marshfield from the head of the table. "What do you want to learn, Paget? No use asking Dave if it's anything to do with business; I can tell you that."

Forced to say something, I seized on the first word in my mind.

"It isn't business—it's Abyssinia. I want to know what we are all going there for."

"Ha, ha, ha!" Old Marshfield's big frame shook with laughter. "Wiser heads than yours want to know that, my boy—eh, Rocca?"

He turned to his guest as he had done before dinner, and once more that distinguished gentleman failed to appreciate his humor.

"Some wiser heads know already," he retorted stuffily. "Not that Mr. Paget is not wise," he added quickly, with a foreign bow to me.

"Oh, confound your jokes, Marshfield!" It was Hayes, the engineer, who spoke. "You said you had the biggest thing I had ever done waiting for me. Where is it? That's what I want to know; and I want you, not your son, to tell me."

Few men spoke to Mr. Marshfield that way, but Hayes was a privileged genius. The banker's smile was broader than ever as he answered:

"That's what we all want to know, Hayes, and Mr. Rocca's going to tell us."

Rocca took the cigar from his mouth, and his teeth flashed in a self possess smile. "All in good time, Mr. Marshfield. In Italy we do not do business in such a what you call it—hustle."

"There hasn't been much hustle about this," snorted Marshfield. "You were going to tell us all about it to-night, you remember, and that's a month later than you first wrote. Now we are waiting."

"I have changed my mind." Rocca put the cigar back in his mouth and puffed at it complacently, quite oblivious to the frown Marshfield's clerks had learned to tremble at.

"And we can change ours," cried the banker.

"Then you will lose, not I," returned the Italian calmly. "There is more money in the world, Mr. Marshfield, than opportunities like this to invest it. But you Americans must always talk business.

Why spoil a delightful evening? In a day or two I bring you a definite proposition. Until then—" He spread out his hands in an eloquent gesture, and relapsed into silent contemplation of his cigar.

"Until then," Hayes put in sharply, "you might tell us what started you on Abyssinia. It's the last place on earth, I always thought."

"Ah, you Americans!" Rocca shrugged his shoulders. "You think the world begins with New York and ends with San Francisco. You forget that we Italians have been in Abyssinia for many years. It it not the last place to us."

"It's the last place you got jolly well thrashed in," muttered a man near us.

But he was neither a genius nor sufficiently wealthy to speak his thoughts too loud, and no one else cared to throw in the face of the great Rocca the complete defeat of the Italian army of occupation.

"What's it like?" persisted Hayes. "How long's this road of yours? What's the country she's going through? If it's bad country, you can't build a road for nothing, you know. I can do it as cheap as anybody, but it will have to be a good mine if that's what's to pay for it."

"If it were what you call a good country," returned Rocca, "there would be no need to come to America for an engineer, Mr. Hayes."

Hayes's weather-beaten face relaxed in a broad grin.

"Very nice, Mr. Rocca; but kind words build no railroads."

"Oh, drop it, Hayes," Marshfield broke in peremptorily. "This isn't the first class in geography. Survey parties can teach us all that. Mr. Rocca is to give us something more."

"Ah, but it is very interesting."

Rather to my surprise, Rocca dropped the cold reticence with which he had hitherto met every reference to Abyssinia. For more than half an hour he regaled the company with an impromptu lecture on the country, the people, their customs, religion, and history.

After the first few moments, my thoughts wandered from the man, to

ning on at the head of the table to the girl I had found shelterless in Washington Square. The wild ravines and dreary uplands of mountain Africa faded from my mind, and I saw, instead, an old-fashioned, stiff drawing-room. Mrs. Noyes standing there, one arm around a slender, black-garbed figure, a sensitive face pale beneath a mass of dark hair, long lashes which lifted for a second to let one flash of gratitude and trust reach me.

Probably, at that moment, Maria and Cousin Lucy were sitting in that room and I was here, wasting my time on an unillustrated lecture on foreign travel. David's voice in my ear shattered the vision.

"He talks like an encyclopedia, just as long and about as exciting. Thank the Lord, it's over at last."

Old Marshfield had risen, and his guests were trooping out of the dining-room. In half an hour at the most, we would be free to pursue our investigations at the Auvergne. But what then? In this house there was a clue ready to my hand, and I had not been able to grasp it. What better chance would I have in the tumult of a restaurant?

"What a beastly bore!" David came up to me as I stood in a secluded corner, watching the assemblage. "I wonder what the governor's thinking about to bring all these people here to listen to such truck. The man didn't say a thing that you couldn't have read in half the time."

"I wasn't listening," I answered. "How soon will you be able to get away?"

"Oh, in a minute or two, I fancy. Hallo, what does Rocca want with us?"

The great man was crossing the room toward us with the evident intention of entering into conversation. Mindful of his place as assistant host, David advanced a step to meet him.

"Very interesting, Mr. Rocca," he said with a solemn face. "You have convinced me that I must go to Abyssinia."

The Italian's keen eyes shot a quick, penetrating glance at the young man. He was hardly the type of person I would have undertaken to beguile with social sugar-plums.

"You are polite, at least," he remarked suavely; "but what I said was nothing. If you and your friend are really interested, I should be delighted to talk more to you, and to show you various things I have in my rooms. Why should you not come with me now? After dinner, in a crowd, is no place for serious conversation.

An acceptance trembled on my lips, but David took the words out of my mouth. "It is unfortunate, but Mr. Paget and I have an engagement to-night. Perhaps you will give us another opportunity."

"Ah, you young men, so full of pleasure that you have no time for business! Well, time cures that. To-morrow at lunch, perhaps? My agents have taken an apartment for me in Thirtieth Street —shall we say at one o'clock?"

"With pleasure," I hastened to say before Marshfield could decline the second invitation.

With a smile that laid bare his white teeth, Rocca bade us a courteous good night, shook hands with the rest of the party, and took himself off. As his figure vanished through the door, I turned to Marshfield.

"Why the dickens didn't you go? You needn't have been in such a rush to decline."

"Why?" echoed David. "Why, indeed? Didn't you say you wanted to play old sleuth at the Auvergne?"

And why not play it in Rocca's rooms?" I retorted.

My friend regarded me with silent, obvious contempt.

"Why not?" I repeated warmly.

"Stephen, you are in danger of becoming a conceited ass. The whole world does not revolve around your flights down-stairs, or your flights of fancy either. Rocca is a big man, with his head full of big schemes. You're not a scheme, and you're not big.

"A fine pair of sleuths we'd be, sitting up in his rooms and yawning over another volume of that Abyssinia rot. You've got me in for it to-morrow, as it is. For the Lord's sake, give me a rest now."

David concluded his long speech by leaving me in order to announce to his father his intention of going out. Ten

minutes later we were walking rapidly down Fifth Avenue, and I was wondering whether, after all, I had not dreamed my vision of the man lighting his cigarette in the carriage.

CHAPTER XI.

A Friend in Need.

THE dinner crowd had gone, and the restaurant of the Auvergne was beginning to fill again with its usual nightly throng of supper patrons when we reached it. No popular restaurant is long deserted in New York. Breakfast and luncheon, dinner and supper, they tread so closely on each other's heels that to the stranger it must seem as if the city's life was one vast meal.

But I was in no humor for speculation on New York's appetite. Instead, I studied the head waiter as he ushered us to a corner table—studied him, and learned nothing. If he possessed any knowledge of last night's trap, his stolid, smooth-shaven face did not reveal it.

"*Bonsoir*, M. Paget," he murmured; recommended sweetbreads with mushrooms *sous cloche*, took our order for the food we did not want, and departed. I decided he knew nothing.

The orchestra started the old "Santa Lucia," and once more I heard the Hungarian's voice filling the room. I pointed him out to Marshfield, a picturesque figure in his blue sailor blouse and gaudy Venetian sash. David turned in his chair to look at the friend who was as mysterious as my enemies.

Instinctively the man must have felt the intent gaze upon him, for his eyes fell at once upon our table. The high notes of "Santa Lucia" faltered a little, and I knew that he had recognized me. In a second he was singing as before, but there was inquiry in the eyes still turned upon our table.

I raised my glass reassuringly toward him, at the same time pulling out my watch. It was a cryptic message that I wished to see him later, but he understood. With an almost imperceptible nod of his head, he looked away, and the strains of "Santa Lucia" rang out more joyously than ever.

"Fine-looking fellow," was David's comment as he settled back in his chair after his inspection. "How are we going to get a chance to talk to him?"

"He'll find a way. Keep your ears open. Maybe he will sing us a message."

"Yes, and my eyes too," returned Marshfield. "Here's another friend to make the evening pleasant. Don't look!" he added sharply, as I was about to turn my head in the direction of his gaze. "He hasn't seen us, and there's no use in telling him we are here."

"Who is it?" I demanded.

"Ghedina. You remember him—the chap who sat opposite me at dinner, a young fellow not more than thirty-five at the most."

"Do you suppose he could be the man we're after?" I asked rather doubtfully. "He didn't have a word to say for himself, and I didn't think twice about him. But what the dickens could bring him here if he has nothing to do with it?"

"What brings all these people here?" Marshfield waved his slim hand about the room, now comfortably crowded. "Lights, food, drink, music, the search for some kind of excitement. Look here, Steve." He leaned across the table, and his voice was graver than he often allowed it to become.

"I told you once before you were in danger of making an ass of yourself over this business, and I mean it. If you are going to play detective, you've got to keep your head.

"Suppose you really did see that fellow driving away from our house. It doesn't prove that the man he took there knew what he had been up to with you. I know lots of tough characters, but, so far, I've kept clear of the police: It's ten to one that Ghedina never saw your friend, and that he came here to wash the taste of the Abyssinian lecture out of his mouth. I'm going to watch him, of course; but there's no use in getting excited about it."

I eyed David in displeasure for a moment. It is not agreeable to be accused of a case of the rattles at critical moments.

"It seems to me," I remarked, "that Rocca is not the only lecturer to-night.

And if you knew Miss Bigontina, and had rolled up and down stairs and in and out of cabs for the past day or two, you might wake up a bit yourself."

David broke out in a hearty laugh. "I'll take it all back. You are a model of calm courage. To prove my repentance, I will make a suggestion. You can see the fiddler there, and I can see the back of Ghedina's head. You watch your man and I'll watch mine, and the devil take the hindmost."

I laughed, and for a few minutes we sat playing with the food the waiter brought, and watching.

"Anything doing?" asked David at last. "Bookkeeping is more exciting than this kind of detective business."

"Wait," I cautioned. "Here comes my man. There's just the chance that he will sing to us."

As I spoke the orchestra broke into the weird Hungarian melody "Maria," that I had heard the night before. The violinist's voice filled the room with a subtle melancholy, and we sat, fascinated. Oblivious of his charge, David turned to face the man, the fork with which he had been pretending to eat, waving slowly in the air as he kept time involuntarily to the slow chant.

Then he came—croning over his violin as before—the whole soul of an ancient race pouring itself out in a language but half intelligible to the pleasure-seeking throng he sang to. He passed us without a word or sign, singing his way through the crowded room.

There was no joy in the song, only a numb despair through which ran a current of sheer defiance like the cheer of dying men. I had never heard him like that before. He knew that the throng was there for merriment, not for sadness, and that he must please the throng. But to-night—to-night, I fancy, he was pleasing himself.

Down the room he marched, halted by the window where he had stood to warn Maria and myself, wheeled about, and, still singing, started toward us. From his throat he poured a torrent of wrath and revolt that mounted higher and higher—mounted, faltered, and died, snuffed out in one hideous, abrupt gasp.

At that sudden shattering of a tremendous vision, every soul in the room started, but only David and I held the key to the secret of the collapse. The [illegible]st was opposite Ghedina's table. The violin had dropped from his shoulder, and hung mute in his hand, while he stared as into a serpent's eye at the face of our late dinner companion. We saw Ghedina's look fastened on the unhappy wretch in front of him; saw his heavy jaw protrude viciously; saw his lips move under his carefully curled, slight mustache as he spoke to the man. Then, while we gazed at the dimly understood tragedy, the Hungarian tore himself from the fascination of that baleful face and rushed up the room toward the orchestra's platform.

It was a different man that passed us. The fire had died in the eyes; under the high cheek-bones the face was ashen gray; and the bow of the violin shook in the silenced singer's hand. Behind him, as I sat awed and dumfounded in my chair, I caught a glimpse of Ghedina's cynical smile. It was from that that my friend was fleeing.

Purple with rage, the gross figure of the head waiter pursued the musician. The orchestra had stopped in consternation at their leader's downfall, a chorus of exclamations and jeers rose from the guests of the restaurant, and through it all I felt rather than saw the secret core of the sudden tumult, the smile of the man with whom I had been dining an hour ago.

"My Lord!" muttered David.

"It's Ghedina!" I cried, under my breath. "Ghedina is our man!"

"And if he is?" breathed Marshfield. "And if he is—what then?"

What then, indeed? Already the restaurant's patrons, weary of the second's sensation, were settling down to their neglected suppers; even as he spoke, Ghedina's eye fell upon the excited form of my friend, half-risen from his chair. He nodded pleasantly as though he found the evening most delightful, turned to his table, and raised a glass of wine toward his host's son in which to drink his health.

It was a charming exhibition of Old-World courtesy, and Marshfield forced himself to respond. Lifting his own glass, he touched his lips to the rim, then set it down abruptly.

"It chokes me," he growled hoarsely. "The cursed brute! What does it [illegible]"

Across the serving-table by our side a grimy hand shot out to thrust a piece of paper in front of me. I glanced up in time to see an "omnibus," an ignorant waiter's helper, turn hastily away. In front of me was a hurried, illiterate scrawl, which I could with difficulty decipher:

Come to the café. I need help.

One swift glance told me that Ghedina's attention was no longer bestowed upon us. I tossed the paper over to David and rose from the table. Marshfield's eyebrows lifted slightly, but he made no other sign, and I strode down the room. At Ghedina's table I paused for a moment, took a cigarette from my pocket, tapped it on the box once or twice, and lighted it.

"Good evening, Mr. Ghedina. Didn't they give you enough to eat at the Marshfields'?"

"Oh, Mr. Paget! Good evening. We meet again, I see." The fellow rose from the table with a cordiality that was almost effusive. "But I do not come to eat—I come to see New York. But you—you are native here, is it not so? Are you hungry so soon again?"

I forced a laugh from dry lips. "Oh, no. It is near where I live, and I came for a glass of wine with my friend. Do you find New York interesting, Mr. Ghedina?"

"Very." The man's lips curled in the same smile with which he had followed the fleeing musician. "It is always new. One sees so much of the—er—unexpected, of the unexpected," he added, as though he had found precisely the word he sought.

"Well, that is always interesting. As for me, I find it much the same."

We bowed politely at each other, and I passed on, secure in the belief that Ghedina would not connect my exit with his own strange interruption of the Hungarian's song. And I had learned something too.

"The unexpected," Ghedina had said. Then he could not have anticipated meeting the violinist there; but if that was so, why had he come at all—to see New York?

"Nonsense," I said to myself, answering my own question as I made my way to the café. "He's no raw boy, attracted by electric lights, like some poor moth to a lamp. What does he care for New York?"

That question was still unanswered when I turned into the café. The violinist was there ahead of me, seated at one of the small, marble topped tables. He had had sufficient command over himself to sit down, but that was all. In the minute or two that he had been waiting for me he had strewn the table with bits of broken matches and toothpicks; as I came upon him, he was picking up and dropping the tiny fragments like one beside himself. I had always seen him strong, self-reliant, high spirited, and the man's terror appalled me.

At sight of me he sprang up, cast one hunted look around the room, and breathed into my ear: "I tried to help you; you must help me." The whisper ended in a choking sob.

"Of course I will help you. What do you want?"

"Money."

"Money?" Involuntarily I drew a little away from him in natural suspicion. Was it all part of an elaborate trick?

Was this fellow, despite his music, nothing but one of the great army of minor rascals who live on petty forms of mild extortion and blackmail? I had done nothing for which to be blackmailed, it is true; but that is not always essential. Suddenly I saw my adventures in a new and sordid light.

"Money! I must have money!" The man's face was close to mine again, and it was gray and old. There was no trick about this. "They have found me. If I stay here three hours, I am a dead man. It is my life I ask for. Give me money to go."

Luck favored him. I had drawn a hundred dollars from the bank that afternoon, and the bulk of it was still in my pocketbook. He snatched greedily at the wallet I handed him and thrust it into his pocket with a gasp of joy.

"Where are you going?" I demanded.

It occurred to me that I was paying a hundred dollars for the privilege of losing the one clue on which I relied. As old Marshfield would have said, it was not good business.

The violinist flung out his hands in a wild gesture. "Anywhere! Anywhere away from New Orleans! Where the first train goes. Anywhere away from him!"

"From Ghedina?"

The violinist nodded, too much occupied with his own fears to wonder what I knew of Ghedina.

"Why?"

"He knows me. Ah, I thought he was in Europe, and that here I was safe. He alone knows me. It was the devil who brought him here. But there is time—I may escape yet."

I caught him by the arm as he started for the door, forcing him to listen.

"What are you afraid of? No one can hurt you here. Who is Ghedina that you should run from him?"

"Let me go. It is death to stay."

With the strength of the panic-stricken he tore himself from my grasp, then turned for a second to face me, his words coming in breathless haste, though his voice never rose above a whisper.

"They meet to-night—down-stairs in the annex. I know who they are. I recognize them by the walking-sticks. I balked them once—I and my brother. My brother is dead. Ghedina knows me. He will tell them to-night. Then they will hunt me out as they hunted my brother.

"But I have time still and money—thanks to you, sir; money!" For a second the real man showed through his degrading terror and he bowed with a certain inborn dignity. "Good-by, sir, and thank you."

I was staring at an empty doorway. The violinist had gone, taking with him the mystery of his own fear and my warning. For a second I gazed awe-struck at the beginning of the long path over which the fleeing man had started. Then I raised my head.

Four or five of the near-by patrons were looking at me curiously; behind the cigar-stand the fat, sleepy cashier had roused herself to unwonted interest, her round eyes protruding in amazement at the colloquy she had witnessed. There was nothing to be gained by making a spectacle of myself and I started back to Marshfield.

At his table Ghedina was still seated, smoking a cigarette and sipping a glass of wine. He looked up at me with a pleasant smile as I passed, but though my lips moved there was no answering smile in my eyes. They had pierced beyond the suave, well-groomed face to the wall where his coat and hat hung. There was a slight walking-stick there, with a round top of hammered silver.

(To be continued.)

GREATEST LITTLE RAILROAD.

A CORRESPONDENT sends us a clipping referring to what he considers to be the greatest little railroad in the world, and there is no doubt that in proportion to its length the Erie and Michigan Railway is one of the best-equipped roads in America. In regard to the length of the road, our correspondent's clipping errs slightly on the side of exaggeration.

The newspaper gives the length of the road as eleven miles, but it is in fact a little less than nine and a half. Contracts have recently been placed for a new freight mogul and two hundred freight-cars.

When these orders are filled the railroad will have six locomotives and three hundred freight-cars, as well as a train of passenger-cars. Besides all this land equipment, the road owns three lake steamers.

The line runs from Alabaster, on the shore of Tawas Bay, Michigan, to East Tawas. Last year it paid a dividend of twelve per cent. Its chief freight items are plaster and gypsum, the latter being found in almost inexhaustible quantities around Alabaster. The company runs four passenger-trains a day. There are seven stations on the line.

The road is absolutely independent, and the only system it connects with is the Detroit and Mackinaw, at East Tawas.

BEES TIE UP A RAILROAD.

BY AUGUST WOLF.

Every Conceivable Effort, Even the Wisdom of a Bee Expert, Is Used to Dislodge Them from a Tank-Pipe—Then Two Small Boys Solve the Problem.

BEES are credited with doing all sorts of unusual things, but probably this is the first time that a queen and her retinue and subjects completely tied up a railroad.

It happened recently on the Harriman system at Twin Falls, Idaho, when a lusty swarm accomplished what the James J. Hill Congress and other well-organized agencies have repeatedly failed to do.

E. R. Ferguson, a traveling salesman of Chicago, was an eye-witness. He said, in describing the incident

"Tin dish-pans, tom-toms, whistles and other recognized lures failed to dislodge the swarm, which had settled in the spout of the standpipe at the water-tank, where a long train of freight-cars stood on the main line without sufficient water in the boiler of the big mogul to pull out.

"The driver and fireman did excellent team work in trying to reach the pipe, but the bees gave them short shift and the men refused to make the second attempt.

"H. A. Swab, an expert on the honey-gathering hymenopterous insects, bore down on the scene to capture the swarm. He was armed with a nail keg and two long sticks. He sent his helper to coax the bees into the keg, but in less than six seconds the assistant had a score of active bees up his sleeves, and he made a dash toward the railway station.

"The firemen and section crew were next routed. The engineer appealed to Agent Sullivan, who declared that it was a matter for the maintenance of way department. The conductor suggested sending for the sheriff. The brakeman on the rear end insisted upon calling out the fire brigade, but the brakeman on the front end offered no solution, as he was nursing a dozen or more knobs on his face and hands about the size of mature hickory nuts.

"Finally a bystander prescribed the water cure, adding, 'If that doesn't drive 'em away nothing will.'

"A well-directed stream from a garden hose seemed to have a quieting effect. The pipe was lowered to the intake on the tender and the tank filled with bees and water.

"While replacing the pipe the fireman was attacked by several stragglers, and, to protect himself from further onslaught, he tied a red bandanna handkerchief around his head. After raising the spout he tucked the handkerchief into his pocket and accepted the congratulations of the onlookers upon his escape, but while mopping his face a vagrant bee winged its way out of the folds of the bandanna, got busy and stung him on the lip

"After the excitement with the bees two small boys climbed to the roof of the water-tank and, with bare hands, captured the queen. They placed her in the bottom of the keg, into which the bees quickly swarmed. Mr. Swab bought the swarm, paying for the youngsters one dollar and twenty-five cents."

As it is not likely that the real cause of delaying the train will be incorporated in the official report to headquarters, the foregoing record is made to show how the tie-up occurred.

ON THE EDITORIAL CARPET.

Come, Boys, Gather Around Us Back Here in the Hut, and Listen to the Stove-piping.

NOVEMBER ORDERS.

NOVEMBER will see us well out on a new division. We have spent the last four weeks in adjusting our valves, tightening up, and oiling around; and the gait we are going to cut out over the next month's stretch will fairly scorch the ties.

We like to be duly modest about our motive power, but it's hard. A crew that has spent as much time as we have to get a smooth motion, with a string of fine rolling stock behind, is apt to feel that the road is lucky to have such an outfit running over it.

To get down to facts, and they are hard to get away from, we shall pass a new serial through the injector next month, which is as keen as a headlight on a clear night, and as exciting as a first run over a new track.

Another fiction feature to which we point with pride will be OLD BURKETT'S DISCIPLE, a short story, by J. R. Stafford. This is not a railroad story, but it's a railroad *man's* story; just as it is any kind of a man's story. It is one of those stories in which a man is shown in his primitive strength and his primitive weakness, and it is told in the way of the man who knows.

Then we have Emmet F. Harte in a new and more serious guise, but writing equally well about THE LEAP OF 637 as he has done about Honk and Horace, or any other of his picaresque characters. Edgar Welton Cooley and Charles Wesley Sanders will also be with us.

Doubtless some of our earlier readers will remember a story we published nearly three years ago called THE RECKONING, and those who do remember will be glad to hear that a story by the same author, James Norman Shreve, entitled THE TRAIL OF THE MISSI EXTRA is slated for the November number.

In the matter of special articles we shall have an interesting historical account of how railroad men prevented the assassination of Lincoln, written by Bertram Adler; the ROMANTIC SECRET OF THE AUTOMATIC COUPLER is told by E. L. Bacon, and MOTIVE POWER is dealt with in the HELP FOR MEN WHO HELP THEMSELVES department by C. F. Carter.

Railroad men of fifteen or twenty years' standing will have an old memory revived for them in the STORY OF 999, as retold by Remsen Crawford; while a story on MAKE UP TIME, by T. S. Dayton, is as fast as its title indicates. There are others, including the inimitable OBSERVATIONS OF A COUNTRY STATION-AGENT and the ninth instalment of RIDING THE RAIL FROM COAST TO COAST; but, lest we tell all we know, we will save a few of these little plums for you to discover when you get the magazine.

THE EDITOR'S SAFETY-VALVE.

IF there is one part on a locomotive that can be called more important than another, we should say it might be the safety-valve. We are quite mixed up with safety-valves this month; partly because we wanted to be, and partly because we didn't.

This paragraph is going to be the editor's safety-valve; but, contrary to that useful bit of mechanism, it is by no means the most important feature of the magazine. Still, we are making steam enough to have use for a safety-valve, and we hope you will patiently listen to its *popping*.

That little word is one we are mighty particular about, because it is really the cause of our getting mixed up with safety-valves again. We thought, when we had got off our little piece last month which concluded with the statement that the safety-valve was popping merrily, that we should be through with safety-valves for a long time, because we were contemplating another record dash in which we should use all our steam to the best advantage.

What was our dismay, when we found that the printer had made us inform a waiting world that our safety-valve was *pumping*. Honest, we never had that kind of a safety-valve. We'd as soon think of having a celluloid crown-sheet or an emergency-brake emerging from the steam-chest. We wouldn't do it!

We knew that every eagle eye and every steam-producer north of Patagonia would open the magazine straight to that page and

glue his scornful optic on that safety-valve as it pumped merri[illegible].

We had two consolations: One was that our readers, who are as charitable as they are critical, would not hasten to judge us until we had a chance to explain; and the other was that, as this will be in print before our shame is made public, we can remedy it before we are overcome with reproaches.

We had another use for this safety-valve; but as this paragraph has taken the shape of a confession, we will let off the remainder of the steam under another head.

WE ISSUE TRAIN ORDERS.

THE LIGHT OF THE LANTERN department is one of the most popular departments ever run by any magazine, and the more letters we receive the better we like it. There is just one matter, however, to which we should like to call the attention of our readers who use this department, and that is the importance of inquirers signing all letters with their full name and giving the postal address.

Many of the queries we receive are of a nature to admit prompt replies through the mail, and to these queries we like to give individual attention. Others, because of the specific quality of the answer, would be in the nature of advertisements; and while we are always glad to give the best advice or information we have by mail, such replies cannot be published in the magazine.

Therefore, readers will favor us greatly by using their full names and addresses when sending questions to this office, and they will in many cases hurry the replies by doing so. Of course, only the initials and the city will be used in the magazine, as usual.

BOUND VOLUMES.

LAST month we promised that we should have more to say about the bound volumes of THE RAILROAD MAN'S MAGAZINE. Already the reader probably knows all we were going to say on this subject, for doubtless by this time he has read the article by the editor with which this number opens.

In this brief review the leading features of the past three years' work are covered. If, when we come to the end of a similar period, the review is as pleasant and as entertaining, we feel that both ourselves and our readers will have every cause for satisfaction, and we are sure that it will be so.

If any of you want to stand in the observation-car with us a little longer, and look back-track with more minuteness than is possible in a short article, we shall be glad to give you whatever specific information you desire about the dates or character of whatever stories may be of interest to you, or to give you a general idea of whatever volume you may have missed, if you will drop us a line, taking care to give us a name and address that Uncle Sam can deliver a letter to.

SHY ON LANTERNS.

WE want to thank George H. Wallace, of Racine, Wisconsin, for his letter calling our attention to an illustration in a recent number in which a railroad man was pictured with a farmer's lantern. We apologize for this awful breech of railroad etiquette; and while we may be a little shy on the shape of lanterns, we feel that otherwise we may be all to the Pullman. Mr. Wallace asks in the same letter if we can resurrect a poem entitled "Kelly and Burke and Shea." As we are always glad to do our readers a good turn, we publish it here complete:

THE FIGHTING RACE.

"Read out the names!" and Burke sat back,
And Kelly dropped his head,
While Shea—they call him Scholar Jack—
Went down the list of dead.
Officers, seamen, gunners, marines,
The crews of the gig and yawl,
The bearded man and the lad in his teens,
Carpenters, coal-passers—all.
Then, knocking the ashes from out his pipe,
Said Burke in an offhand way:
"We're all in that dead man's list, by Cripe!
Kelly and Burke and Shea."
"Well, here's to the Maine, and I'm sorry for Spain,"
Said Kelly and Burke and Shea.

"Wherever there's Kellys there's trouble," said Burke.
"Wherever fighting's the game,
Or a spice of danger in grown man's work,"
Said Kelly, "you'll find my name."
"And do we fall short," said Burke, getting mad.
"When it's touch and go for life?"
Said Shea, "It's thirty-odd years, bedad,
Since I charged, to drum and fife.
Up Marye's Heights, and my old canteen
Stopped a rebel ball on its way.
There were blossoms of blood on our sprigs of green—
Kelly and Burke and Shea—
And the dead didn't brag." "Well, here's to the flag!"
Said Kelly and Burke and Shea.

"I wish 'twas in Ireland, for there's the place,"
Said Burke, "that we'd die by right,
In the cradle of our soldier race,
After one good stand-up fight.
My grandfather fell on Vinegar Hill,
And fighting was not his trade;
But his rusty pike's in the cabin still,
With Hessian blood on the blade."
"Aye, aye," said Kelly, "the pikes were the
When the word was 'clear the way!'
We were thick on the roll in Ninety-eight—
Kelly and Burke and Shea."
"Well, here's to the pike and the sword and
the like!"
Said Kelly and Burke and Shea.

And Shea, the scholar, with rising joy,
Said, "We were at Ramillies,
We fought [illegible]s at Fontenoy
And up in the Pyrenees.
Before Dunkirk, on Landen's plain,
Cremona, Lille, and Ghent,
We're all over Austria, France, and Spain,
Wherever they pitched a tent.
We've died for England, from Waterloo
To Egypt and Dargai;
And still there's enough for a corps or a
crew,
Kelly and Burke and Shea."
"Well, here's to good honest fighting
blood!"
Said Kelly and Burke and Shea.

"Oh, the fighting races don't die out,
If they seldom die in bed,
For love is first in their hearts, no doubt,"
Said Burke; then Kelly said,
"When Michael, the Irish Archangel, stands,
The angel with the sword,
And the battle-dead from a hundred lands
Are ranged in one big horde,
Our line, that for Gabriel's trumpet waits,
Will stretch three deep that day,
From Jehosaphat to the Golden Gates—
Kelly and Burke and Shea."
"Well, here's thank God for the race and
the sod!"
Said Kelly and Burke and Shea.

Joseph I. C. Clarke.

BRAKEMEN OF THE OLD DAYS.

WE had this October number on the main line, all ready to make the time, when the following letter from W. D. Skinner, Lafayette, Louisiana, flagged us. We pulled her down to take it aboard, and we don't regret it.

Editor THE RAILROAD MAN'S MAGAZINE.—Your article in the August number in regard to the brakemen of the good old days certainly struck a tender chord in my heart. It was all so true. There are no more brakemen. They are, as you say, "trainmen."

How well I remember, back in 1881, when I was braking on the Louisiana Western Railroad, between Lafayette, Louisiana, and Orange, Texas. One hundred and twelve miles was the run, and it was the days of good 'old "hay burners," as we used to call them.

There were no yard crews in those days to make up our trains, and no call-boy to rout us out. We were supposed to line up at the wood-car and "wood up," or fill the tender with heavy pine wood, the first thing in the morning, and then get up the train from any part of the yard, wherever the cars might be found.

There were no air-brakes, nor Janney couplers, only the old link and pin, and often we did not have enough pins to make up our couplings. In that case we used to hike out for the scrap-pile behind the blacksmith shop and pick up any old bolt that would hold out long enough to start.

After getting everything ready we would pull out, and on reaching the first station we would unload all freight for that [illegible] and take on what was going out. [illegible] four miles we came to a wood-pile, and would wood up the old hay burner again, and that would be the method from Lafayette to Orange, which point we would reach about 10.30 P.M., having left Lafayette at [illegible].

We had no cooking outfit in the caboose, and we used to carry our lunch with us, and in very hot weather it usually turned sour, as we had no ice to keep things cool. In fact, ice was a luxury. We were content to drink at the water-tank on reaching Orange.

At night we had to do whatever switching was required—such as putting in cars at the freight depot, and taking some out, assembling lumber cars, placing empty stock-cars and when we finished and put the engine away in the roundhouse, you can believe that we needed no further inducement to promote sleep.

In those days Orange, Texas, was a good bit rough. There were some jokers in that burg who thought it fun to take a shot at a brakeman's lamp while he was riding on top of his train or switching.

The engines were eight-wheel Baldwins, and they all bore a name and number. Only four trains were operated daily, two passenger and two freights. A special train was a rarity, and meeting points were comparatively easy to make. Only eight engines were owned by the road at that time. They were No. 1, Sabine; No. 2, Calcasieu; No. 3, Lafayette; No. 4, St. Landry; No. 5, Grand Marais; No. 6, Lake Charles; No. 7, Vermillion; No. 8, Vinton.

All in all, those were happy days, until the consolidation came on and the road was merged into one big system. The Southern Pacific Atlantic System it then became. The wood burner passed out, the air-brake came in, yard crews, up-to-date improvements, the book of standard rules, the eye-test, the examinations, and all the other things relegated the old brakeman to the ranks of the "has beens."

There is one thing that I wish to remark

in conclusion: The hobo, or Weary Willie, in those days never had to ask for a ride. The order was reversed. We used to invite them. They came in very handy at a wood-pile, and we would insist on them wooding up while we took a rest.

TWENTY-FOUR HOUR WATCHES.

A READER in Fort William, Canada, sends us this bit of information regarding a query from J. M. Happy, Texas, which we recently published:

The twenty-four hour watches are used in Western Canada, from Fort William, Ontario, to the Pacific coast, where the twenty-four hour system of running trains is in use. The watch is the same as the Eastern timepiece, except that just under the numbers from 1K to 12K is 13 to 24 in large numbers. For instance, just below 1K is 13, and below 6 is 18, and below 12 is 24. So, you see, one-half of the day is indicated by the outside numbers, and the other half is indicated by the inside numbers. Of course, every five minutes is marked on the outside of both, as on any other watch.

ANOTHER SONG WANTED.

WE have been asked to publish the words of the song, "My Jolly Railroad Boy." Can any of our readers help us out? The first lines of the chorus run something like this:

For his face is like a rose,
And he always wears good clothes.

SAVES TIME AND TEMPER.

A SIMPLIFIED time-table is the handiwork of George L. Geiger, formerly railroad editor on the Salt Lake City dailies, and now an advertising and circulation specialist.

Mr. Geiger's invention — for dozens of old-time railroaders say they have never seen anything like it—is really a combination of time-tables.

The average traveler making a long journey finds the numerous indexes he is forced to wade through, in order to follow his movements over different connecting lines, more puzzling than a jig-saw teaser.

The "Geiger Time and Temper Saving Device" is simply a time-table with everything not covering the traveler's movements blocked out. Portions of the time-table of each route the traveler must take are pasted together to show the departure of the train taken and the arrival of this train at the meeting-point with the connecting route. The idea is repeated just as many times as there are transfers to be made.

Mr. Geiger sends us a simplified time-table covering a trip from Leavenworth, Kansas, to San Francisco, half-way across the continent. The table is simplicity itself, and would be so were it covering a trip around the world.

Women, especially, have found the Geiger time-table of great assistance to them. Porters find it does away with the constant stream of questions usually directed at them by lone and worrying women making long journeys.

Mr. Geiger extends all travelers full permission to adopt his simplified time-table.

GEORGE HOEY'S CLASSIC.

IN response to a multitude of inquirers, we wish to state that the author of that classic of railroad poetry, "Asleep at the Switch," was George Hoey, a son of John Hoey, at one time president of the Adams Express Company. The poem was written by George Hoey when he was about nineteen years old, at his home, Hollywood, Long Branch, New Jersey. He was an actor, author, and dramatist.

This information is furnished us by the author's son, Johnnie Hoey, who is well known as an actor.

SELLS FOR 75 CENTS A COPY.

THINK of paying seventy-five cents a copy for THE RAILROAD MAN'S MAGAZINE! That's what it will cost you in Dawson City and other parts of our gold-producing Northwest! Mr. J. R. Morin writes us a long, interesting letter from that city. He says:

I want to give you my best felicitations for giving such good reading to the people as appears in THE RAILROAD MAN'S MAGAZINE. It has interested not only railroad men, but every one else that reads it. It is filled with good stories, and is always interesting.

We have to pay seventy-five cents a copy for it out here, but that does not matter. Even if I had to pay two dollars a copy I would not mind.

WHAT WE LIKE TO HEAR.

WE are not always looking for praise. We like to find bricks among our bouquets—for we are not absolutely perfect. Many times, when we think that we look like an Atlantic pulling a limited expr[illegible]

we are, to many, only a 2-6-0 switcher lumbering along with a string of empties. However, boys, we leave that to you. Here are some of the opinions we found in our mail this month.

J. G. Slim, St. Paul, Minnesota.—"All I can say is that it is a first-class magazine, and good enough for any one. I wish you the best of luck and success."

J. W. Dooley, Grand Junction, Colorado.—"I wish it were a weekly instead of a monthly."

Harry A. Moore, Philadelphia.—"Good luck to you and *our* magazine."

Paul S. Meacham, Petersburg, Virginia.—"I never tire reading it. It is the best on the pike. Let's have it twice a month or every week."

George E. Evers, Chicago.—"My wife took it away from me at breakfast the other morning."

SIXTY-FIVE YEARS' SERVICE.

WHEN we wrote in our August issue about Gideon Swain, the Canadian veteran, and suggested that he might be the oldest railroad man alive, we had not heard of Benjamin W. Smith, of Princeton, Indiana. Mr. Smith is eighty-eight years old. We know that every old-timer and every man now active in service will be interested in him, so we are publishing his letter just as he sent it to us:

In the August number is an article headed "Oldest Railroad Man." I will have to go at least one better than that. I was born in Harrison County, Indiana, March 26, 1821, and was raised in Madison, Indiana, from which started the first railroad built in the State.

I worked on the grading of the first mile of that road in 1835. The grade on the hill out of Madison is about one mile and a quarter long, with a raise of about four hundred feet. I worked a while on the opening of the first deep cut on that hill, and left it to go as an apprentice to a machinist.

On June 22, 1843, I went into service as a brakeman on the hill. I was transferred to machine-shop work, and to act as extra fireman on the locomotives.

In 1846 I was promoted to locomotive engineer, and in 1854 I was master-mechanic of the Indianapolis and Peru road, which I held until it was consolidated with the Wabash, when I returned to the M. and I. In 1856 I was promoted to master-mechanic, which I held until I was again consolidated out by the union of the road with the Jeffersonville Railroad, in 1865.

I again went as engineer on the road I served about twenty-seven years of my life on that road. I went for a while as engineer on what is now the branch of the C. M. and D., between Indianapolis and Hamilton. From there I went to Spencer to start a machine shop, but the panic of 1873 was too much for me, and in 1875 I moved, with my tools, to Rockport, Indiana, and took charge of the machinery of what was called the Cincinnati, Rockport and Southwestern, now a part of the Louisville and St. Louis division of the Southern Railway, and was again consolidated out by the uniting of the road with the Southern Railway.

I then sold my [illegible] with the Mariette and Northern Railway, which was then under construction. After a year's service there, I [illegible] out and returned to the Southern Railway at this place, [illegible] service on this [illegible] years.

Counting from 1843 to 1908, I have been in service sixty-five years. I am now a pensioner on the Southern Railway. I know that I am the oldest railroader in Indiana, as well as its oldest locomotive engineer and master mechanic, unless there is one, Thomas Wallace, in California.

When I went into service, there were but twenty-six miles of railroad in Indiana, and I knew every man on the operating force. I believe they are all gone, and I alone am left.

THE QUESTION OF PRECEDENCE.

THERE may be truth in the dictum that all men are born equal, but if they stay so it certainly is not their own fault. The argument of precedence is the grand, never-failing, never-ending argument of the world.

After all, it is the motor-pinion that turns the mainshaft of life; and though there are no ball-bearings about it, and it often runs hot and makes an awful noise, yet the moment it stops the driving wheels are still, and useful activity gives place to "innocuous desuetude."

We have again heard from one of our friends as to who occupies the place of glory, honor, renown, and danger on a railroad-train. In answer to our Buffalo correspondent, who belittled the danger of the mail-clerk's position, our friend, the mail-clerk, comes along again with the following.

I am the clerk quoted in the May number, and if you can spare time and space in the best magazine published, I will try to interest, and probably surprise, your Buffalo correspondent.

He says five men on the front end are killed to one mail-clerk, but he is mistaken; and if he will get the figures to prove his side of the case, I will do the same. The real explanation is that the public usually *hears* or *reads* of five killed on the front end

to one mail-clerk. Ask some clerk to tell you [illegible] clerk to find himself with his legs under the warm side of a boiler, and he does not need a broken steam-pipe to cook the flesh on the rest of his body. Fire, usually caused by lamps in his car when the smash-up comes, will cook him overdone before he is able to "find" himself.

I have never tried to throw twelve tons of coal into a fire-box ten feet long and seven feet wide, but I have often succeeded in throwing the same amount of mail into three hundred and fifty boxes and forty or fifty sacks and pouches—and a great many times without making an error.

I remember very well a wreck I was in on a night run in which my car caught fire from the fire-box of the engine itself, and I was rescued by the porter and three other men, and undoubtedly saved from being roasted alive.

As to the building of steel cars, we *may* live in hopes "but die in despair." I am sure I have at least one more trip to make before I get a chance to work in a steel car, and that trip may be my last—who knows?

Referring again to the May number, I would like to say that I had not read the article in the December, 1906, number, when I wrote that letter; but since reading the May number, I sent for a copy and was highly pleased with "Magicians of the Mail."

Next to signing the pay-roll, give me THE RAILROAD MAN'S MAGAZINE. I am continually speaking a good word for it.

Now, let us tell you something in confidence. We have held, with becoming gravity, this editorial throttle for many moons. We have heard arguments about the bravery of the engineer and the danger of his position, the bravery of the fireman and the danger of his position, the bravery of the conductor and brakeman and the danger of their positions, and the bravery of the call-boy and the danger of his earthly calling.

If anybody ought to know we guess we ought. Well—we don't! The only decision we can come to is that of the old farmer, as he gazed on the rhinoceros at the zoo. "There ain't no sich animal!"

Human beings are pretty much alike, and the difference is very often the merest chance. For instance, a wreck seems imminent. The engineer gives her sand and air; the fireman is just about to climb down to break the coupling; the con. is getting ready to save his passengers; the postal clerk looks sadly at the love-letters he has just sorted—all are primed and ready when the engine bumps gently into the rear end of the obstructing freight, and nobody is injured but a pup in the baggage-car, who gets it in the neck with a hundred-and fifty-pound trunk.

Perhaps a train piles up gently over the body of a sleeping cow, and nobody is killed except the cow and a passenger in the rear car, who falls through a window and is drowned in a ditch.

Thus, fate comes along and kicks the legs from under theory and proves that the most dangerous place on a train is where it isn't, and that the most dangerous occupation is that of the crossing-tender, who doesn't need to go within ten feet of anything on wheels.

There are too many exceptions to have a rule; but of this we are convinced: railroading is an occupation which calls for real men in all its branches. It is an occupation in which hardship and danger call for strength, and wit, and courage, and we are also convinced that every railroad man is strong, calm, and defiant of circumstances in whatever position accident or chance may place him. Where all are excellent there is no best.

WHERE IS JOSEPH H. LINDSEY?

Information is wanted of the whereabouts of Joseph H. Lindsey, who was last heard of in 1906 when he was employed in the shops of the Southern Pacific Company, at Sacramento, California. If you should hear of him or know where he is, write to his brother, Robert L. Lindsay, 777 Minna Street, San Francisco, California.

A LIVING FROM POULTRY

$1,500.00 FROM 60 HENS IN TEN MONTHS ON A CITY LOT 40 FEET SQUARE.

TO the average poultryman that would seem impossible and when we tell you that we have actually done a $1,500 poultry business with 60 hens on a corner in the city garden 40 feet wide by 40 feet long we are simply stating facts. It would not be possible to get such returns by any one of the systems of poultry keeping recommended and practiced by the American people, still it is an easy matter when the new

PHILO SYSTEM

is adopted

THE PHILO SYSTEM IS UNLIKE ALL OTHER WAYS OF KEEPING POULTRY,

and in many respects just the reverse, accomplishing things in poultry work that have always been considered impossible, and getting unheard-of results that are hard to believe without seeing

THE NEW SYSTEM COVERS ALL BRANCHES OF THE WORK NECESSARY FOR SUCCESS

from selecting the breeders to marketing the product. It tells how [illegible] to raise nearly all the chicks hatched. It gives complete plans and tells how to make [illegible] at the least possible cost and in the best manner.

TWO POUND BROILERS IN EIGHT WEEKS

are raised in a space of less than a square foot to the broiler without any loss and the broilers are of the very best quality, bringing here three cents per pound above the highest [illegible] prices.

OUR SIX-MONTHS-OLD PULLETS ARE LAYING AT THE RATE OF 24 EGGS EACH PER MONTH

in a space of two square feet for each bird. No green cut bone of any description is fed, and the food used is inexpensive as compared with food others are using.

Our new book, the PHILO SYSTEM OF POULTRY KEEPING, gives full particulars regarding these wonderful discoveries, with simple easy-to-understand directions that are right to the point, and 15 pages of illustrations showing all branches of the work from start to finish.

DON'T LET THE CHICKS DIE IN THE SHELL.

One of our secrets of success is to save all the chickens that are fully developed at hatching time, whether they can crack the shell or not. It is a simple trick and believed to be the secret of the ancient Egyptians and Chinese which enabled them to sell the chicks at 10 cents a doze

CHICKEN FEED AT 15 CENTS A BUSHEL.

Our book tells how to make the best green food with but little trouble and have a good supply, any day in the year, winter or summer. It is just as impossible to get a large egg yield without green food as it is to keep a cow without hay or fodder

OUR NEW BROODER SAVES 2 CENTS ON EACH CHICKEN.

No lamp required. No danger of chilling, overheating or burning up the chickens as with lamp brooders using kerosene, oil or any kind of fire. They also keep all the lice off the chickens automatically or kill any that may be on them when placed in the brooder. Our book gives full plans and the right dimensions for same. One can easily be made in an hour at a cost of [illegible]

TESTIMONIALS.

Belcefontaine, Ohio, June 7, 1909.

Mr. E. R. Philo, Elmira, N. Y.

Dear Sir:—I just want to tell you of the success I have had with the Philo system. In January, 1909, I purchased one of your Philo System books and I commenced to hatch chickens. On the third day of February, 1909, I succeeded in hatching ten chicks. I put them in one of your fireless brooders and we had zero weather. We succeeded in bringing through nine; one got killed by accident. On June 1, one of the pullets laid her first egg, and the most remarkable thing is she has laid every day since up to the present [illegible]. Yours truly, R. S. LaRue

907 S. Clinton St., Baltimore, Md., May 28, 1909.

E. R. Philo, Publisher, Elmira, N. Y.

Dear Sir:—I have embarked in the poultry business on a small scale (Philo System) and am having the best of success so far, sixty-eight per cent of eggs hatched [illegible], all chicks alive and healthy at this writing. They are now three weeks old. Mr. Philo is a public benefactor and I don't believe his System can be improved upon, and so I am now looking for more yard room, having at 15x30 where I am now. Yours truly, C. H. Lack

South Britain, Conn., April 14, 1909.

Mr. E. R. Philo, Elmira, N. Y.

Dear Sir:—I have received your system and have read it through [illegible] success. I agree with you in your statement on nature, your brooder is it. The first experience I had with your System was last December. I hatched 17 chicks under two hens, put them as soon as hatched in [illegible] your brooders out of doors and at the age of three months I sold them at 35c a pound. They then averaged 2 1-2 lbs. each, and the man I sold them to said they were the finest he ever saw, and he wants all I can spare this season.

Yours truly, A. F. Nelson

Osakis, Minn., June 7, 1909.

Mr. E. R. Philo, Elmira, N. Y.

Dear Sir:—You certainly have the greatest system the world has ever known. I have had experience with poultry, but I know I have the system that brings the real profits. Yours

Jesse Underwood

Brockport, N. Y., Sept. 12, 1908.

Mr. E. W. Philo, Elmira, N. Y.

Dear Sir:—I have had perfect success brooding chickens your way. I think your method will raise stronger, healthier [illegible] besides it saves so much work and risk.

Yours respectfully, M. S. Goodrich

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"I enrolled six months ago for your Dynamo Running Course, completed it in four months, received a Diploma and secured a position at once in the Dynamo Room of the Manhetto Meriden Suede Cloth Plant at Manchester, N. Y., at a salary of $5 per month more than double the wages I was receiving at the time of my enrollment.

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JOEL J. BAKER, R. F. D. No. 1, Fulton, N. Y.

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C. F. RASMUSSEN, Clay Center, Kansas.

"When I enrolled in the I. C. S. I was getting $12 per week. I did not know a thing about Sheet Metal Pattern Drafting.

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PETER COUTURE, 602 Jefferson St., Topeka, Kansas.

"I am more than pleased with the training that I received through the I. C. S. Where I was receiving a salary of $ [illegible] per day at hard labor I am now receiving a salary of $ [illegible] per month as Superintendent of the City Electric Light Plant at Huntington, Indiana and I can attribute this advancement to nothing but the Course of Instruction in your Schools."

J. W. HIER, Supt. City Elec. Lt. Plant, Huntington, Ind.

"I must give you a little note in regard to my progress and the way you teach, so that it may help someone else to use as I have done through sending in one cent postcard that was given to me some two-and one half years ago. When I enrolled with you I was working as a carpenter, and after studying for eighteen months I got a position as draftsman with an architect in this city (Mr. Galloway, Architect) an old student of yours. Later I took a few contracts on my own account and recently I took my drawings (including the last one with 100%) and made an application for a position as Building Inspector for the Board of Education, City Hall, Toronto, and they engaged me right there on the spot.

If I had not taken a Course with you I would not have been able to fill my present position. Your method of teaching is all that can be desired."

J. J. HELLING, 113 Ann Street, Toronto, Ont., Can.

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J. W. DAVIS,
Marquis, Sask., Can.

"At the time of my enrollment I was a fireman and could not seem to advance at all, having remained in that position for about nine years. I thought that I had a chance to get a good practical knowledge of Steam Engineering, but that did not help me much, as I had no technical knowledge nor training; but since I enrolled for my course one year and nine months ago, I have progressed rapidly and I now hold the position of Chief Engineer of the Henry Heywood Memorial Hospital of Gardner, Mass., with a salary of $1800 a year. At the time of my enrollment my salary was $50 a month and board."

WALTER E. WELLS,
Care of The Henry Heywood Memorial Hospital,
Gardner, Mass.

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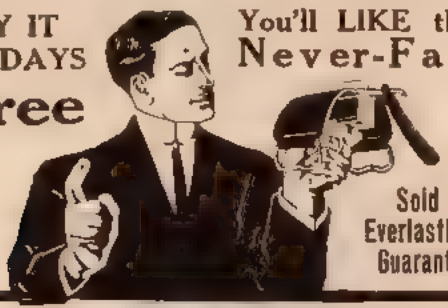

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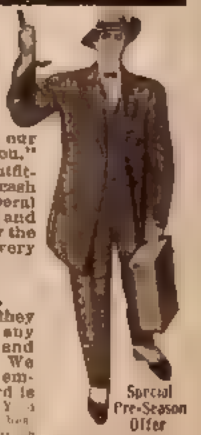

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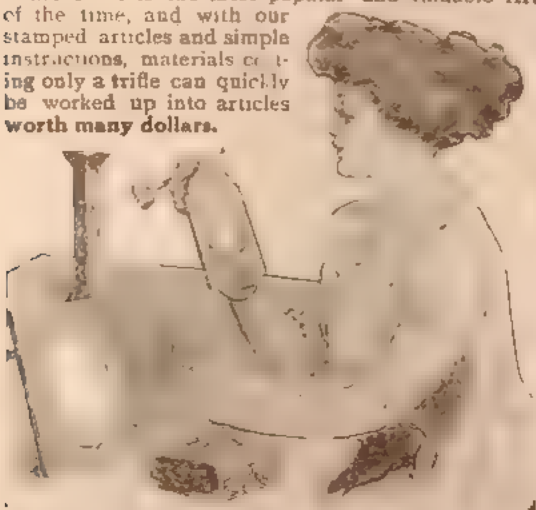

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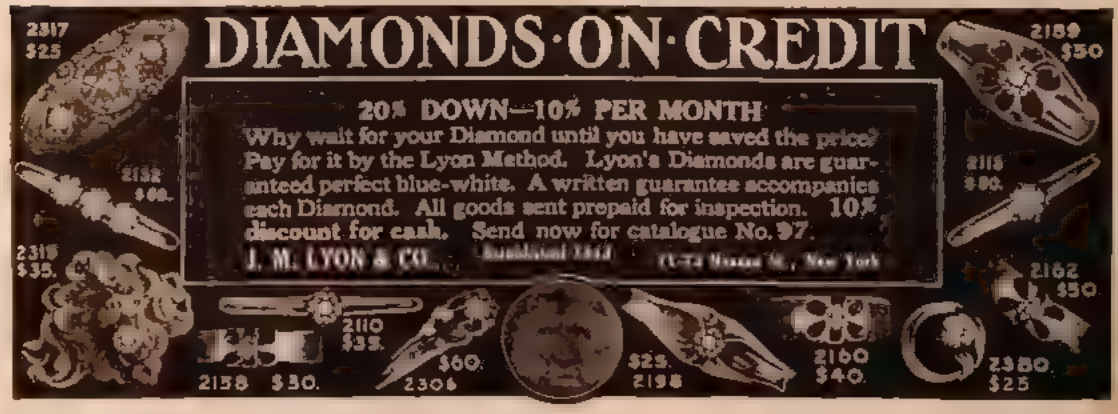

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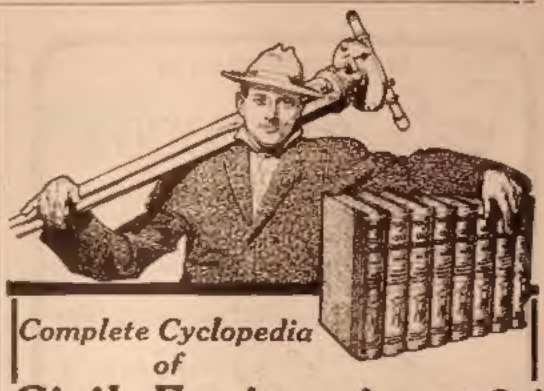

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